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THE AGRICULTURAL PROBLEMS OF INDIA

BY

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R. B. GANGA RAM, C.I.E., M.V.O.,

LAHORE.

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INTRODUCTION.

AT the Durbar held at Lahore April last H. E. Lord Chelmsford in a speech, that will, for statesmanlike foresight, ever retain a high place in Viceregal deliverances, referred to the question of the agricultural development of India and particularly of the Punjab as follows:—

"I have referred to the part which the Punjab is playing in the war. I now turn to the still greater part which it may play in the realm of peace. The prosperity of India is, and must be for many years to come, dependent mainly on her agriculture. The natural advantages of climate and soil, the abundance of labour, the industry and thrift of the peasantry, the provision through Government agency of a generous water-supply, and the accumulated experience of generations engaged in practical husbandry have enabled her not only to feed her vast population but to produce a large surplus for export and thus to purchase a steadily increasing amount of foreign manufactures. But the growing pressure of population on the soil, together with a progressive rise in the standard of living, makes it essential for her to increase her production per acre if her rate of progress is to be maintained. In Europe and Northern America science has made great strides in this direction, and the small but promising beginnings made by research workers in this country show what immense possibilities lie before us. The Punjab has peculiar advantages for leading the way. The huge areas brought under irrigation by the canals provide an ideal field for improved methods of agriculture. Your cultivators are enterprising and intelligent, but they are hampered by shortage of capital and the lack of scientific knowledge. Their traditions have inclined them to put quantity above quality and to set more store by immediate returns than future possibilities. Let me suggest that if the desired increase of production is to be secured, improvements are necessary in three directions: (1) in the methods of cultivation, (2) in the selection of better varieties of the staple crops, and (3) in the harvesting and marketing of purer grades. The Agricultural De-

partment is doing its best to introduce all these improvements and is meeting with a most encouraging degree of co-operation. The superiority of its selected varieties of various crops, especially of wheat and American cotton, has already been proved. I hope that there will be a considerable expansion of research in this direction as soon as more workers are available. The importance of demonstrating the results so far obtained has recently been impressed on Local Governments, and the grant of Rs. 10,70,000 which has been made to the Punjab from the profits realized by the Government of India from the exports of wheat, should enable material progress to be made in the important work of demonstration. Government are also considering the question whether anything can be done to improve the arrangements for the marketing of cotton, so as to secure to the cultivator a full price for superior varieties. These are all matters in which the large landholders of the Province can render material assistance. You can stimulate improved methods of cultivation on and around your estates by example and precept; you can help your tenants to obtain the best varieties of seed by establishing seed farms in co-operation with the Department and so teach them the value of maintaining pure strains; and you can discourage the practice of adulteration, which has sullied the reputation of India's crops and prevents the cultivator from reaping the full value of its out-turn. In all these respects your help will be invaluable; in fact, rapid progress will be impossible without it. Only a comparatively small number of people are able to visit the Government farms, and those who do go are always satisfied that they could produce the same results themselves. But when they see their neighbour adopting some reform, growing better crops, and getting more money for them, then they are readily converted and in their turn become apostles. It is by this means that I hope to see prosperity increase and spread in the fields of this fair province. First, research of the scientists; second, demonstration by Government officers; and last, the intelligent activity of the cultivator bringing the seed sown by science to fruition in the field. A municipality or a company can generate electricity at a power-station and light the streets with it, but numberless wires are required to convey it to the houses of the people. It is the same with scientific agriculture. The discoveries of the laboratory are sterile until they are applied to practical cultivation. It is the privilege and the duty of the large land-

holder to pioneer the distributary wires that will bring the light of science to shine on the labours of the humble tiller of the soil."

Rarely has the case for agriculture been more admirably condensed and its supreme importance in the economic development of the Empire more forcibly delineated, and I am fain to confess that the advice which His Excellency has given has proved the inspiration to the preparation of this little pamphlet. I can not claim that I bring to my task the qualifications which a specific training in agricultural science would confer; indeed I can not even claim the advantage of agricultural heredity. I am by profession an Engineer, and the best years of my working life have been given to that profession; but on my retirement from the service of Government in 1903, I took up the study and practice of agriculture which I have since pursued with enthusiasm. It was not, moreover, till the accents of Lord Chelmsford's epoch-making speech "sounded the advance" that I felt impelled to systematically study such problems as the conditions under which the agricultural masses of India (no less than 72 per cent of the entire population) have to work; the effect of these conditions on their development; the part that the Government is taking in advancing their material progress; the measures which the Government has adopted to combat the ravages wrought by famine; and lastly the measures which in my humble opinion Government might appropriately adopt towards the attainment of the same beneficent end, and which, presumably, are matters of anxious solicitude to our present Viceroy. In pursuit of my quest I have made the freest and fullest use of the materials available in the various Government blue books, and have endeavoured to present the facts and figures which I have extracted in a form that will render them, without undue mental effort, comprehensible by my readers of whom the majority will probably be laymen.

My investigations have led me to examine the same problems which have at earlier periods engaged the attention of the school of Indian economists represented by the late Dr. Dadabhai Naoroji, the late Sir Romesh Chunder Dutt and Mr. Digby. I have, however, viewed my subject from a standpoint different to those authorities which has led me to different conclusions. The panacea for India's ills, real and imaginary, which these eminent gentlemen were led to recommend was reduction of expenditure, particularly of the Home

Charges, and the army, thereby admitting of remissions of taxation and automatically putting more money into the pockets of the people. The proposed remedy was, I fear, chimerical and unpractical; population will increase, civilization will advance and with it the obligations of the Government and the needs of the people alike will grow. Where are now the savings effected by Lord Ripon's Finance Committee of 1886, and indeed of other Commissions before and after appointed to effect reduction of expenditure? long since sucked into the vortex of more costly and ambitious schemes and the ever increasing needs of the administration. The true remedy as it seems to me is not to handicap Government retard public improvements, starve public works and even jeopardise the safety of the Empire by a misconceived policy of retrenchment, but to devise new and expand existing sources of income and to be ever on the alert to harness the discoveries of science to tapping great natural resources which an all-wise Creator has placed within our reach. The philosophy of the school from which I differ is, if I may say so with all humility, one of pessimism; the philosophy which I would advocate is, if I may say so without egotism, one of optimism.

Agriculture, it may be truly said, is India's most ancient heritage; and amidst the galaxy of potentialities on the horizon of her future there is none of brighter or more assuring promise. Interests and activities outwardly more dazzling have hitherto absorbed too large a share of the attention of the more enlightened of my countrymen, and if I can succeed in placing agriculture in its true importance before their minds I shall consider myself amply rewarded.

THE AGRICULTURAL PROBLEMS OF INDIA.

CHAPTER I.

POVERTY OF INDIA.

So far back as 1870 the late Dr. Dadabhai Naoroji was the first to draw public attention to the "Poverty of India" in a book which he published under that title. In this work Dr. Naoroji tried to prove from a review of figures which he had collated that the masses of the Indian population were existing in a condition verging on starvation. To avoid misconstruction I think it would be advisable for me to give the conclusion arrived at by Dr. Naoroji in his own words.

Says Dr. Naoroji "The whole produce of India is from its land. The gross land-tax is put down for 1870-71 a little above £ 21, 000,000. Now, I suppose I shall be within the mark if I say that Government takes for this land-tax, on an average, one-eighth of the gross produce, if not more. This gives for the gross production of the country, say, about £168,000,000; add to this—gross opium revenue about £ 7,000,000; gross salt revenue, £ 6,000,000; gross forest £600,000. The total, thus, of the raw produce of the country amounts to under £182,000,000, to be on the safe side, let us say £ 200,000,000, to include the produce of half a million tons of coal, of alienation lands, or anything else there may be. Now, the population of the whole of British India is nearly 150,000,000; giving, therefore, less than 27s. a head for the annual support of the whole people.

"I then further raised the production from £ 200,000,000 to £ 300, 000,000, to include the value of manufacturing industries, excise on spirits, and a large margin for any omissions, making 40s. a head for the gross production of India as a high estimate."

The fallacy, if I may use the word in reference to anything propounded by so eminent an authority, in Dr. Naoroji's computation is that except in the case of land revenue (in which the data

are based very largely on supposition) he treats the gross revenue derived by the Government from such items as opium, salt and forests as income of the people or at any rate assumes that, but for the intervention of Government in appropriating these items as revenue, equivalent amounts would have accrued to the people. Dr. Naoroji also assumes that the items he enumerates exhaust the entire productive potentialities of the land, and as," the whole produce of India is from its land", therefore, the entire productive potentialities of the country. By adding these items and the amount £ 168 millions which Dr. Naoroji estimates as the gross production derived directly from the land, he arrives at £ 200 millions as the total productive capacity of the country and dividing this figure by 150 millions, the population of India at that time, he arrives at 27s. per head as the average income of the population. It is a significant corollary that, when a further allowance has been made for the large income of the opulent minority, Dr. Naoroji's average income would dwindle to a figure suggestive of a degree of destitution amongst the poorer classes which is simply appalling, to a figure indeed on which existence would be impossible, so that Dr. Naoroji's figures, if they prove anything at all, prove too much.

For the evils which he had unearthed Dr. Naoroji suggested various remedies such as the more extensive employment of Indians in the public service, the reduction of Military Expenditure etc, and generally all such measures as would operate to curtail outlay.

It may be noted that in 1870 when Dr. Naoroji wrote his book the population of India was computed at 150 millions; in 1872 it had actually been ascertained to be 185 millions and in 1911 it had risen to 244 millions or 63 per cent increase as compared with 1870, and hence, if the poverty in 1870 was so great as painted by Dr. Naoroji what must be the state of things now, unless the potentialities of land have also increased by sixty-three per cent.

Another contribution in the same trend to the poverty of India theory was made by Mr. Digby in 1901 in a book entitled "Prosperous British India ; a revelation". Mr. Digby proceeded on much the same lines as Dr. Naoroji and endeavoured to arrive at the average annual income of a cultivator by calculating the aggregate value of the agricultural produce of the country and

dividing it by the number of people. After making certain allowance on account of the incomes of the well-to-do classes, Mr. Digby calculated the average income of a cultivator to be 12 shillings per head per annum and after drawing various inferences reaches much the same conclusions as Dr. Naoroji as to the starving condition of the Indian masses.

The data of the eminent economists whom I have ventured to criticize are, in many cases, so purely hypothetical, the figures with which they deal so vast and in many instances impossible of being ascertained with any approach to precision that I have found it impossible to follow their methods of investigation. In order, therefore, to examine impartially and dispassionately the proposition that the bulk of the Indian population not only suffer from a chronic deficiency of food but are existing in a condition verging on starvation, I have determined to approach the question from a totally different standpoint and by first working out the food requirements of the population in cereals only and comparing these with the ascertained production of these commodities, to place the result before my readers for such inferences and conclusions as they may consider warranted. My figures are taken entirely from the various Blue Books issued under the authority of the Government of India, and unlike those of the distinguished economists whose deductions I have had the temerity to impeach are, in no case, based on assumptions or suppositions. My figures of population are in all cases taken from the Census Report of 1911.

The following table shows the population of India classified according to age, the estimated quantity of food required for each person of the specified age per head and the total quantity of food required for the whole population per day.

Age	Population	Quantity of food per head per day	Quantity of food for whole population per day
0 to 1 year.	10,000,000	0 oz.	nil
1 to 2 years.	5,000,000	1 oz.	139·51 tons
2 to 3 „	9,000,000	2 oz.	502·23 „
3 to 4 „	10,000,000	3 oz.	837·05 „
4 to 5 „	9,000,000	4 oz.	1,004·46 „
5 to 10 „	43,000,000	6 oz.	7,198·66 „
10 to 15 „	34,000,000	8 oz.	7,589·29 „
15 to 50 „	156,000,000	16 oz.	69,642·86 „
Above 50 „	36,000,000	12 oz.	12,053·57 „
Total	312,000,000		99,967·63 tons

Multiplying 99,968 tons by 365 we get the quantity required for one year = 36,488,320 tons.

But it might be urged, and with considerable force, that the average of 16oz. per head per day which I have assumed for the adult (that is between the ages of 15 and 50) population of India will not, ordinarily, suffice for the total rural adult population and still less for the male portion thereof. I, therefore, allow an additional quantity of 8 oz. per head per day to the male adult rural population of the country. The result may be thus tabulated--

Male adult rural population between 15 to 50 years.	Additional quantity of food per head per day	Additional quantity of food for total population per day.
90 per cent of 80 millions which is the total male adult rural population—72 millions.	8 oz.	16,071·43 tons.

Multiplying 16,071·43 by 365 we get the additional food required for one year = 5,866,072 tons.

In addition to this some allowance must be made for confectioneries etc. which form an important element of consumption at marriages and similar festive occasions.

For this purpose I have taken an average of 1 oz. per head per day. This gives us a total quantity of 3,208,008 tons for the whole of India for one year.

After adding to the total quantity of food required for the whole population of India, the additional quantity required for the adult male rural population and the total quantity required for confectioneries etc., we arrive at a grand total of 45,562,400 tons.

My calculation would, however, be incomplete unless I were to take into account the quantity of food which falls under the denomination of wastage. I do not think I should be far out if I set down 10 % on the total consumption to be wasted. After making a further addition of 4,556,240 tons on this account we arrive at the conclusion that for human consumption alone 50,118,640 tons are required for the whole population of India for one year.

But to the quantity required for human consumption a yet further addition must be made on account of the requirements of cattle, horses and other domestic animals who are partly fed on

grain. I would accordingly formulate the following estimates on this account. My estimates are derived from No. 67 of Table IV of volume I, and No. 27 of Table IV of volume II of the Agricultural Statistics of India 1912-13.

FOR THE YEAR 1912-13

	Number in thousands.		Total number in thousands	Number to which cereals are assumed to be given, in thousands	Quantity of cereals assumed to be given to one animal per day.	Total quantity of cereals per day, in tons
	British territory	Native States.				
Cows ...	35,712	4,248	39,960	½ of total —19,980	2 lbs.	17,839
Bulls and Bullocks	47,003	3,924	50,927	All 50,927	1 lb.	22,735
Cow-buffaloes ...	12,472	1,466	13,938	½ of total —6,969	3 lbs.	9,333
Horses and Ponies	1,555	169	1,724	All 1,724	3 lbs.	2,309
Mules ...	81	2	83	All 83	2 lbs.	74
			Total quantity of cereals consumed per day—52,290 tons.			

Multiplying this by 365 we get the total quantity of cereals required for cattle, horses etc. for one year as 19,085,850 tons.

Again to the quantities required for human consumption, confectioneries, wastage and the consumption of domestic animals a further addition must be made on account of seed for the following year.

N.B.—The areas are taken from the Summary Table No. 1 of the Agricultural Statistics of India 1912-13.

Name of cereal.	Area under cultivation in thousands of acres for the year 1912-13.	Quantity of seed per acre in seers	Quantity of seed for the whole area in thousands of tons.
Rice ...	81,230	12	870
Wheat ...	28,253	24	605
Barley ...	8,401	20	150
Jawar ...	24,608	8	176
Bajra ...	18,899	2	34
Gram ...	15,945	8	114
Ragi ...	6,850	12	73
Maize ...	7,379	9	59
Total ...	191,565		2,081

Lastly to the quantities required for human consumption, wastage, the consumption of domestic animals, and seed for the ensuing year an addition has to be made on account of exports, which are unavoidable and indispensable, in order partly to provide for funds to buy imported necessaries and luxuries of life, and partly to meet obligation on account of home charges. This I have worked out as follows from table No. 9 of the Review of Trade of India in 1915-16 :—

Name of cereal.	Quantity exported in thousands of tons for the year 1912-13.
Rice	2,734
Wheat	1,728
Barley	615
Jawar }	32
Bajra }	
Gram	145
Ragi }	28
Maize }	
Total ...	5,282

Adding up the total quantities arrived at under all these heads we get in round figures 77 million tons as the grand total of the requirements of the Indian Empire in cereals for one year.

Having made this computation of our requirements let us now cast a glance on the other side of the picture and endeavour to ascertain the resources that are available to meet this colossal obligation. The following statistics extracted from summary table No. 1 and Appendix A No. 1 of Volume I and summary table No. 1 of Volume II of the Agricultural Statistics of India for 1912-13 show the area under cultivation, the yield per acre, and the total yield of cereals in India (including Native States), for the year 1912-13.

Name of cereal.	Area under cultivation in thousands of acres.		Total area under cultivation in thousands of acres.	Average yield (lb. per acre.)	Total produce in thousands of tons.
	British territory.	Native States.			
Rice	78,752	2,478	81,230	1,005	36,445
Wheat	23,861	4,392	28,253	814	10,267
Barley	7,420	981	8,401	877	3,289
Jawar	20,969	3,640	24,609	904	9,931
Bajra	16,268	2,630	18,898	566	4,775
Gram	12,423	3,522	15,945	688	4,897
Ragi	4,456	2,394	6,850	1,147	3,508
Maize	6,316	1,063	7,379	986	3,248
Total ...	170,465	21,100	191,564	...	76,360

This shows that we are producing, in a normal year, just enough to meet our requirements with no surplus to meet the contingency of a failure of the rains in the ensuing year.

The rate of food consumption per head which I have adopted as the basis of my calculations both in the case of human beings and animals is, as the reader will observe, taken on very cautious lines: in fact my rates are the minimum indispensable for bare existence: and my estimates, if anything, err in the direction of being in defect and not in excess.

There are a hundred and one other purposes not touched upon by me for which cereals are utilized. In the case of animals also I have taken the minimum quantity, at which their consumption could be estimated, and have, moreover, disregarded the grain consumed by such domestic animals as poultry, birds, and by pariah dogs and wild animals. From the tables given above it will be seen that the lowest figure of the country's requirements in cereals is 77 million tons for with reference to what has been said above I scarcely think that to put the net figure of the cereals required for the present population of India at 77 million tons would be going above the mark.

As a further test that the rate of consumption per head adopted in the above calculations is not unduly high, I propose to institute a comparison of the rates arrived at by me for the consumption of cereals in India with the rate of wheat consumed in the United Kingdom. From Whitaker's Almanack for 1917 pp. 503. I find that the total produce of wheat in the United Kingdom in 1915 was 2,048 thousand tons. From pp. 509 I see that in 1914, 5,196,337 tons of wheat was imported from other countries. At page 487 the population of the United Kingdom is given as 45,371 thousand according to the census of 1911. Calculating from these figures I arrive at the conclusion that the average quantity of wheat consumed per head per day in the United Kingdom is 15·6 ozs. But making some allowance for animals and industries, such as the manufacture of biscuits, and starch which are prepared from wheat, it would perhaps be safer to take only 12 ozs. per head per day as the quantity of wheat consumed in the United Kingdom. It should, however, not be overlooked that in the United Kingdom meat enters very largely into the dietary of the people ; and if, this fact notwithstanding, their consumption of wheat approximates to 12 ozs. per head, I think it will be conceded that my estimate of consumption for the Indian population whose staple food is a cereal of one sort or another, is not extravagant.

I must admit that this happy state of things did not exist before 1901, and that the rapid strides which have been made in the economic development of agriculture during the last decade have been due to three causes :

(1) the institution of the Agricultural Department,
(2) the effect of the recommendations made by the Irrigation Commissioners in 1901-03, and
(3) the high prices which have been realised for the produce which has been exported during the last decade.

The following table shows at a glance the figures of progress both in British territory and Native States during the periods referred to :—

Table Showing progress made from 1903-04 to 1912-13.

N.B.—This table is worked out from the Census Report 1911 and summary table No. 1 of Agricultural Statistics of India Volumes I and II for the year 1912-13.

	British Territory.				Native States.				Total for India.			
	1901.	1911	Increase	Increase per cent	1901	1911	Increase.	Increase per cent.	1901.	1911	Increase	Increase per cent
Population in thousands	231,606	244,268	+12,662	+5·5	62,755	70,889	8,134	+13·0	294,361	315,156	+20,795	+7·1
	1903-04	1912-13			1903-04	1912-13			1903-04.	1912-13		
Nett area cropped (in thousands of acres)	208,273	224,166	+15,893	+7·6	15,003	30,397	+15,394	+102·6	223,276	254,563	+31,287	+14·0
Area under food-stuffs (in thousands of acres)	186,878	201,373	+14,495	+7·8	13,047	24,489	+11,442	+87·7	199,925	225,862	+25,937	+13·0
Area irrigated (in thousands of acres)	34,244	45,539	+11,295	+33·0	2,125	5,933	+3,808	+179·2	36,369	51,472	+15,103	+41·5
Nett area cropped per head (in acres)	·90	·92	+·02	+2·2	·24	·43	+·19	+79·2	·76	·81	+·05	6·6
Area under food-stuffs per head (in acres)	·81	·82	+·01	+1·2	·21	·35	+·14	+66·7	·68	·72	+·04	+5·9
Area irrigated per head (in acres).	·15	·19	+·04	+26·7	·03	·08	+·05	+166·7	·12	·16	+·04	+33·3

These figures show that the total area under food-stuffs as also the total protected area has progressed considerably, and has not only kept pace with the increase of population, but has virtually outstripped it, a very satisfactory feature of happy augury. The comparative progress achieved by the Native States is a matter for special gratification.

CHAPTER II

PRESENT CONDITION OF THE AGRICULTURAL PROSPERITY AND EFFECTS OF FAMINE.

I. POTENTIALITIES OF LAND.

IN the Irrigation Commissioners' Report of 1901--03, para. 102 the minimum area that should be protected by irrigation in order to secure the people against famine is estimated at not less than ·4 acre per head of population. Tables I, III and V are prepared on this basis. These tables show at a glance the area cropped per head and I will call them the measure of agricultural prosperity, as well as the measure of immunity from famine. In these tables the different provinces of British India and the more important Native States are arranged in the order of their agricultural productiveness, and a column has been added in which is exhibited the area of culturable waste per head. Any one interested in a particular province or district can thus at once see what room there is for the expansion of the culturable area.

The yield of the crops is the one great item on which the prosperity of the Indian people depends. The following table shows how the average yield of India compares with the average yield of the other countries shown therein.

Table showing yield (per acre) of crops in different countries.

N.B. This table is worked out from tables 215, 216 and 219 of Agricultural Statistics, 1911, Part V. Figures for India are taken from Appendix A of the Agricultural Statistics of India, 1912-13, Volume I; and figures for cotton are taken from the Year Book of the United States Department of Agriculture. Figures for wheat, barley and maize for countries other than India represent the mean yield for 5 years preceding 1911. All figures for India represent average yield of crops revised with reference to crop experiments made up to 1911-12. Figures for cotton of United States represent average yield for 10 years from 1906—1915.

Name of Country.	Wheat. lbs.	Barley lbs.	Maize lbs.	Cotton lbs.
India { Maximum (Irrigated area)	*1,340* (Sind)	*1,300* (United Provinces)	*1,356* (N.-W. Frontier)	*220* United Provinces)
India { Minimum (Unirrigated area)	*137* (Hyderabad State)	*550* Ajmer-Merwara)	*735* (N.-W. Frontier)	*44* (Hyderabad State.)
United Kingdom ...	1,973	2,105	...	...
Australia ...	704	1,123	1,763	...
Canada ...	1,054	1,537	3,487	...
New Zealand ...	1,723	1,976	3,191	...
Austria ...	1,150	1,462	1,135	...
Belgium ...	2,174	2,953	...	...
Bulgaria ...	827	1,025	903	...
Denmark ...	2,526	2,456	...	...
Egypt ...	1,634	1,688	2,059	...
France ...	1,172	1,360	1,097	...
Germany ...	1,796	2,100	...	...
Hungary ...	1,058	1,310	1,489	...
Italy ...	882	958	1,399	...
Japan ...	1,176	1,793	1,525	...
Mexico ...	274	268	830	...
Netherlands ...	2,065	2,855	...	...
Norway ...	1,361	1,702	...	...
Ottoman Empire ...	1,318	1,884	1,372	...
Portugal ...	587	...	...	...
Russia (European) ...	580	873	943	...
Russia (Asiatic) ...	600	748	745	...
Spain ...	830	1,225	1,177	...
Sweden ...	1,808	1,663	...	...
Switzerland ...	1,858	1,949	2,198	...
United States of America ...	848	1,412	1,583	186

These statistics, as might be expected, exhibit considerable diversity of yield. But the outstanding feature of tables VII to XII, it will be at once apparent, is the extraordinary diversity of yield between many of the Provinces and States of India itself. So significant is this incident (*vide* tables VII to XII) and of such high practical importance that I venture to suggest that it would be well worth while of the Government to institute an inquiry into its causes and the practicability of removing it. Take sugarcane for instance, the average yield per acre of this commodity in the Punjab is 1,748 lbs. as compared with 6,950 lbs. in Bombay, and in an isolated experimental farm at Poona which is run under the guidance of the Agricultural Department the outturn has reached the surprising figure of 12,000 lbs. per acre, though even in the United Provinces which are popularly supposed to be great sugarcane producing tracts it is only 2,600 lbs. per acre. Again take

sesamum, its yield in Ajmer-Merwara is 19 lbs. per acre hardly worth two rupees as compared with 319 lbs. per acre in Bihar and Orissa and 448 lbs. per acre in Assam. Once more look at the case of rape and mustard; its yield in Hyderabad Deccan is 40 lbs. per acre as compared with 625 lbs. per acre in Bombay.

These examples show what a lamentable waste of the potentialities of the land is occurring for want of a guiding hand in selection of crops which are suited to the soil and climate. On this point I would draw the special attention of the Government to the radically unsound economic conditions prevailing in so many places leading to the persistent continuance of misdirected efforts to raise crops unsuited to the soil or climate and which can not therefore be profitably cultivated in those areas. The evil is no doubt a legacy of the old regime under which each province, and even each district aimed at being self-contained and live in a state of lofty isolation as regards the interests and methods of its neighbours. Now that the several provinces and States are beginning to realize that they are units of one great empire it may be confidently hoped that they will recognise the advantage of the pursuit of agriculture on strictly economic lines and the production of crops which are suited to the soil, and which give most profitable results. To till the soil and take all the trouble of cultivation for the sake of getting 19 lbs. of sesamum per acre worth Rs. 2 and 40 lbs. per acre of rape and mustard worth Rs. 3 at the outside is obviously waste of energy and time.

India would become very much richer if the selection of crops were made upon expert guidance. If the Punjab can grow wheat more profitably than other provinces it can easily, with the network of railways which over-spread the Empire, supply those provinces whose soil or climate is not so well adapted to this crop. Similarly if Mysore can grow spices more profitably than other provinces there is no reason why it should not cultivate those commodities to the exclusion of all others and in quantities, if possible, sufficient to meet the demands of the whole world.

II EFFECTS OF FAMINE.

Working on the same basis tables II, IV and VI are compiled to show what the protected area is in each province, district and Native State. The figures given in these tables prove that barring the Punjab, Sind and North-West Frontier all the other provinces

are still unprotected. As to the measures that should be taken to protect them the Irrigation Commission Report gave a detailed programme in 1901-03, but I am sorry to observe that the proposals did not go far enough, as is shown by the actual figures given in these tables for the year 1912-13, a fairly prosperous year so many years subsequent to the Report of the Commission and unaffected by the abnormal conditions prevailing on account of the War.

These tables show what still requires to be done in this direction. It is not within the province of a small pamphlet like this to indicate exhaustively the measures capable of adoption to protect the different areas, but I will briefly describe the lines of inquiry which are omitted from the Report.

Before explaining the methods of improvement in this direction it is necessary to draw attention to the most valuable part of the Irrigation Commissioners' Report which is given in their para. 55 reproduced below :—

"Thus, roughly, it may be said that, out of a total rainfall averaging 37½ inches in depth, 59 per cent., or 22 inches, is absorbed in sustaining plant life, in maintaining moisture in the soil, and in replenishing the subsoil water-supply, or is lost by evaporation ; 6 per cent., or 2¼ inches, is utilized in artificial irrigation of all kinds; while the balance of 35 per cent : or 13¼ inches is carried away by the rivers. Again, according to our calculations the surface flow amounts to 51 billion cubic feet, and of this only 6¾ billion cubic feet, or 13 per cent., is utilized in irrigation. The balance of 44¼ billion cubic feet, or 87 per cent. of the total surface flow passes to waste in the sea."

This shows that 35 per cent of the whole rainfall or 13¼ inches if spread over the whole area of the country goes back to the sea. Surely it is not an unreasonable inference that nature meant all this water pumped up from the sea to be utilized in sustaining human, animal and vegetable life and did not intend that a substantial portion of it should be returned unutilized to the ocean from which it was drawn. I am not convinced that this waste is unavoidable, and it is a blot on the science of engineering that means can not be found to capture and utilize this potential addition to the irrigational resources of the world. I will endeavour to briefly outline the methods by which this desideratum may be

achieved, and which in my humble opinion, the Irrigation Commissioners have left out of consideration. The following measures if adopted should materially tend to reduce the quantity which at present goes to waste :

First and foremost is the extension of inundation canals all over the country.

Second. The storing of rain-water in the hills by throwing embankments across the valleys, and thus converting them into impounding reservoirs whence the surplus water could be sent down during the winter season to raise the rabi crops.

Third.—It is not an uncommon experience to have a heavy rainfall at times, and when the rains are heavy dry drainage lines run, rivers rise, and bring down large volumes of water, which inundate the country, breach canal and railway embankments, sweep away bridges, destroy land and crops, and sometimes cause incalculable harm to habitations. This is Nature in an angry mood, and Nature is always retributive when she is wronged. She passes these volumes of water, after they have committed their acts of mischief, wastefully to the sea, whence it was originally pumped up to the heights, as a punishment. The question, then, is—In what respect have we erred ?

The answer is given in the following Punjabi proverb :—

Chetar vah te sona,
Jeth vah te rupa,
Sawan vah te sawan,
Maghar vah te bij ganwa.

The translation of this is that if you plough land in April, you reap gold ; if you plough in June, you reap silver ; if you plough in August, your debits and credits will be equal ; if you plough in October, you will lose everything, even the seed. The intention of this old maxim is that land should be ploughed early, in good time before the monsoon, in order that it may absorb all the blessings that Nature gives in the shape of water and nitrates. The time is April and May, and Nature will then repay the cost of the labour with both hands. Ploughing in June is late but still profitable. August is too late, and October is hopeless.

The troubles we experience are due to our own neglect. Lands of all kinds—culturable, unculturable, and grazing—should be ploughed in April and May, in order that no flat, smooth, sun-baked surface of country should present itself to the rains. It is common knowledge that the run-off from such ground is excessive compared to that from ploughed land, and we want to keep the water where it falls. But if we want it, and the operations in question are in accordance with our own sayings, it may fairly be asked why we do not take the necessary action. The reply is that it is too big a thing, but the people would understand an order. There should be a law, in the interests of agriculture specially and the prosperity of the country generally, that all lands should be ploughed in April or May, so as to be ready to receive the annual rains, which on unploughed land are wasted, and are worse than wasted, because they wash away any good properties the land possessed, and cause it to become poorer and poorer year by year.

Fourth.—Another remedy would be to insist upon all fields having shallow bunds so constructed as to intercept the rain-water and prevent its running to waste. This remedy has been recently tried in Bundelkhand with great success, see paper by Mr. Marsh read before the East India Association, London. In the Punjab Frontier it is also very largely resorted to over a considerable range of the country between the foot of the hills and the Indus. In this tract the people put up bunds sometimes as high as 3 feet round their fields, and intercept large volumes of water which flow down the surface of the barren rocks. The benefits resulting from this process are considerable, one such saturation of the fields being enough to raise a bumper crop of Jawar which is the staple food of the people of those tracts.

Fifth.—The extension of irrigation which is possible by pumping up water from various sources, or lift irrigation. It is disappointing to find that there is in the Report of the Irrigation Commissioners only a single brief allusion to this by no means negligible method of assisting agriculture.

In discussing the Divi Pumping Project the Irrigation Commissioners refer to lift irrigation in the following words, "In Egypt many thousand acres are annually irrigated by steam pumps, but in India steam lift irrigation is almost unknown, although a few

instances have come to our notice, in which by private enterprise efforts in this direction have recently been made on a small scale with oil engines. It appears to us this is a matter in which Government might very usefully lead the way and that well devised pumping schemes should, on this account alone, receive favourable consideration."

Efforts in this direction have been made in the Punjab, and have proved so successful that all uncommanded lands which are within reasonable reach of lift agency, say up to a height of 15 feet from the canal level, are eagerly sought after by the people; and Government finds no difficulty in disposing of such lands advantageously, either by sale or lease.

Sixth. In Amritsar a scheme is being tried to pump up the subsoil water and utilize it for irrigation purposes, the pumping power being obtained hydro-electrically from a Fall on the Canal.

Seventh. There are thousands and thousands of horse power available from the Canal Falls which now go to waste, and the only use which can be made of them is, owing to the rotational closing of canals, to use them hydro-electrically, and to pump up water for irrigation purposes, from canals, wells or tanks or from whatever sources the water may be obtainable; but by far the most extensive source of water supply on which this power can be profitably employed is on a series of wells. This experiment has yet to be made, and a system has yet to be discovered by which a series of wells can be co-ordinated so that the pump working on one well can draw water from all the other wells. It seems, however, quite within the range of possibility that a satisfactory solution of the problem will be forthcoming.

Eighth. The Indian Canal System, though unique amidst the engineering achievements of the world, is nevertheless capable of various improvements. In order to utilize part of the water now running waste to the sea the whole canal system requires remodelling in order that the Kharif supply of the canals need not be governed by the diminished volume of the water in the winter. We should give double, or even treble the supply during the Kharif, and raise more extensive Kharif crops, some of which are very profitable, for example cotton.

In regard to this commodity I may observe that India at present supplies less than 25% of the demand of the world and there is no reason why, by extending the cultivation of cotton, we should not be able to meet the whole demand, and thus bring enormous wealth into the country not only by the sale of raw material but also by the extension of spinning and weaving mills.

If we make a larger quantity of water available in the canals than can be utilized in raising crops, it would still be a great advantage to the people to let them have this water free to enable them to plough and prepare their lands for the winter crops.

CHAPTER III

FORCES WHICH RETARD THE PROGRESS OF AGRICULTURE AND SUGGESTIONS FOR THEIR REMEDY

1. Hindu Law of Inheritance

For countless ages the Indian cultivator has wrung a precarious subsistence from the soil by the sweat of his brow. He has survived centuries upon centuries of oppression, spoliation, extortion and rack-renting from which his forefathers suffered, till in the fulness of time he came under the aegis of the Pax Britannica. The British Government has, in many ways, ameliorated his condition. He can cultivate his land free from the terror of being deprived of the harvest; he is no longer liable to be plundered by his landlord; and the exacting demands of the tax collector have been circumscribed. He is hedged about by a mass of beneficent legislation passed with the object of defining and protecting his rights, yet the fact remains that he is still poor.

Within his own sphere of work the Indian cultivator is no fool. He is a practical agriculturist endowed with the hereditary skill of generations; he understands the different classes of soil, the value of water in manure, crops and the rotation of crops, and his homely proverbs containing a vast store of agricultural wisdom. To make up for his scientific deficiencies Government has instituted the Department of Agriculture which essays to instruct him in improved methods of cultivation, and is constantly occupied in placing within his reach good seeds likely to give profitable results. He knows the value of money, he is physically fit for the work, he is temperate, hard-working and enduring, and yet the fact remains that he is poor. It may, therefore, be fairly asked why should this poverty exist, and why should the production of land work out to such a low figure, (See tables VII to XIII), notwithstanding the benificent intentions of the Government, and expert co-operation of the Agricultural Department.

This question of the cultivator's poverty, notwithstanding all that Government has done to remove it, is a problem of the greatest importance to the State and the people; and neither the Government nor the leaders of the people appear to have yet realised the root cause of the evil which lies in the Hindu law of inheritance. Under that law the land passes from the father to all his sons in equal shares, and is thus divided and sub-divided until it reaches a stage when it no longer pays the peasant to cultivate it. He, nevertheless, clings to it as a cherished memorial of his ancestry even if he has to pay the land revenue by resort to other occupations. To illustrate my meaning; a man has, say, 80 acres of land and four sons; on his death each son takes possession of 20 acres, and if each son happens to have four sons, a not unusual family, each becomes the owner of 5 acres, and in the succeeding generation it may be parcelled out into 1 acre plots or even less. Dr. Mann, in his article entitled The Economics of a Deccan Village, published in the Indian Journal of Economics for December 1916, has drawn attention to another evil resulting from the Hindu law of inheritance. He has surveyed one village in the Deccan and has given the following facts and figures in regard to this excessive subdivision of land which is progressively increasing under British rule. He points out that conditions are even worse than what can be observed from this subdivision of holdings, because the land held is not only small in area but is divided into a large number of fragments. That is to say, that when, under the operation of the Hindu law, landed property is divided among the members of a family, the division is made by partitioning each piece of land, and not by the various claimants taking the whole of various sections of it, and in support of this assertion he gives the following facts and figures in regard to this particular village of which he has made a survey.

The number and size of holdings at various dates in this village from 1771 to 1914 were as follows:—

	Number of land-holders	Average size of holding in acres
1771	24	44
1791	41	25
1797	34	31
1811	54	19
1817	48	22
1829	58	18
1840	60	17½
1914	156	7

It will thus be seen that during the old rule the holdings were large and the holders few, and that the long British period of peace has, during the last 70 years alone, altogether changed the character of the holdings, until at the present time the average holding is below that which is necessary to maintain the cultivator's family, the number of holdings of various sizes is as follows:—

Size of holdings	Number of such holding
More than 40 acres	1
30 to 40 acres	1
20 to 30 acres	9
10 to 20 acres	18
5 to 10 acres	34
1 to 5 acres	71
Below 1 acre	22

The effect of fragmentation in the division of holdings has been that out of 156 land-holders in the village only 28 hold property in a single survey number and in a single piece. The land is split up into no less than 711 separate plots and the larger proportion of these plots is under one acre in size. The following figures show the extreme condition to which the subdivision of land has gone:—

Size of plots	Number of plots of this size
Over 20 acres	1
From 10 to 20 acres	7
From 5 to 10 acres	21
From 1 to 5 acres	266
From ½ to 1 acre	211
Under ½ acre	212

Dr. Mann goes on to say, "So far nothing has been done by the public authorities to stop this excessive fragmentation of land which is an evil of far greater moment than merely resulting from the sub-division of holdings themselves. It has in fact all the evil of very small holdings in that it prevents the use of machinery and labour saving methods, and on the other hand it has all the evils of large holdings in that it hinders the adoption of really intensive cultivation by any holder, which is the great advantage of small holdings. I do not want to discuss here the methods by which public authorities might attempt a way out of what is an obvious difficulty, but the matter has been very seriously tackled in two

or three countries of Europe and also in Japan where a similar condition had grown up.

"At first sight it would appear as if the people were settling this by natural methods, namely, by the abandonment of village life (though not of village land) by an increasing number of people and by subletting a large proportion of land. The extent to which the landholders have left the village without giving up ownership is shown by the fact that only 64 per cent of the registered landholders cultivate their holdings. The remainder have become labourers either in the villages or away from it, and though they still hold their land they have ceased being cultivators in the ordinary sense. The land is thus sublet, and the extent to which this is taking place is evident, for our investigations show only 100 actual cultivators in 1915 as against 156 landholders, or 140 if joint holdings really held by one of the joint holders are excluded. We have then the introduction of cultivators who are not landholders who form 17 per cent of the total number of actual cultivators and some of whom deal with larger areas of land than most of the actual landholders.

"I had expected that these new non-landholding cultivators would be chiefly outsiders. This is not, however, the case. Practically all of them are members of the village who had not formerly cultivated land but who had official connection with the village, such as village mohammedan, the village barber, and so on, together with some members of the leading families who for some reason had no share in the land. It will thus be seen that the average size of the area cultivated by one man is greater than the area owned by one man. If we take ten acres as being the smaller limit of an economic holding then we find that while only 17 per cent of the holdings are above this limit, 23 per cent of the areas cultivated are larger than this. There is hence a tendency for the area of cultivation to be larger than the area owned. In spite of this tendency, however, the bulk of the areas cultivated are still incapable of supporting the families in ordinary village conditions."

From the economic point of view two results of the excessive fragmetation of holdings are apparent: (1) It effectually prevents any outsider with capital from undertaking cultivation on a

large scale, (2) it renders impossible the introduction of outside cultivators with more enterprise, new methods of agriculture and better implements.

The survey of this village by Dr. Mann is, I believe, a typical one and the same conditions prevail in other parts of India. It affords a significant object lesson of the way in which the potentialities of the land are wasted, and of the unresisting fatalism with which the people while sinking under an ever increasing burden of debt and misery yet cling to their acre of profitless soil, because it is their ancestral home, and because of their innate repugnance to seek a living far from home.

So pronounced was the congestion in many districts of the Punjab that the irrigation-*cum*-colonisation schemes for reclaiming waste lands afforded significant relief. After two smaller projects came the great Chenab Canal, and in the Crown waste watered by it the peasants received grants of one square nearly twenty-eight acres each. But it would not appear to have been realised by Government that, without changing the law of inheritance, the congestion evil must re-appear; ; and re-appear it did in double-quick time. In less than twenty years the squares in many places have been subdivided into plots of about four acres, and the wholly commendable idea of these colonies as a home for a prosperous, contented and loyal peasantry has been stultified.

With the subsequent colonies of the Jhelum Canal, Government introduced the law of primogeniture. But it cannot be said to have been a success. It is believed that the law of primogeniture is not altogether popular in the West. The eldest son may or may not be the ablest or the most worthy, and in any case sentiment plays an important part in human life. The father's affection may be evenly distributed, but that is rare, and it is possible that the youngest, the Benjamin, may be the favourite. When sentiment is opposed to law, it comes like grit in the cogs of some intricate machinery and is liable to throw it out of gear. At any rate, whether the law be popular in the West or not, it is unpopular in the East, and will never be welcomed.

This being the position, the following remedy is suggested for consideration. In the first place, it is necessary to lay down by law a minimum area beyond which land shall not be partitioned. For the Punjab it is suggested that the figure should be fifty acres

for unirrigated, and twenty-five acres for irrigated, land. This area is sufficient for two ploughs, and a man in possession of this amount of land should be able to support himself with the produce of one plough, leaving the produce of the other to provide for his children.

To explain the intention further, suppose a man has twenty-five acres of irrigated land, which is nearly the square of the Chenab colonies and exactly the area of the rectangle of the tracts on the Triple Canals now coming into operation in the Punjab. The value of this plot of twenty-five acres should be fixed by Government, and, let us say, for the purpose of family partition it is fixed at Rs. 5,000. Assume that the man, the owner, has four sons—A,B,C, and D. He should be required to nominate one of them as his successor. Say he nominates C, the share in money value due to A, B and D is then Rs. 1,250 each. This amount he should put by and deposit in the Savings Bank or village Co-operative Bank ; and as soon as he has Rs. 1,250 to his credit A goes out with a capital of Rs. 1,250 in his pocket. The turns of B and of D come in due course in the same way, and I believe from my own practical experience that it should not be difficult for a man with twenty-five acres of irrigated land to live and support his family, and also save enough to buy out the three sons in a comparatively short time. The time may be approximately arrived at in this way. If the man works reasonably hard, he should be able to support himself and his family on one-half of his holding, or $12\frac{1}{2}$ acres, and save at least Rs. 500 a year from the produce of the other $12\frac{1}{2}$ acres, which means that he would be in a position to buy out the three sons in seven and a half years. It may be urged that the father might die before the three sons were provided for ; but even so, the arrangement would be in no way upset. The son nominated as heir would succeed to the property, and the sons undisposed of at the time would work in combination with him, as they had previously worked in combination with their father until the necessary provision had been made.

That is the brief outline of the scheme, and the elaboration in matter of detail I may fairly leave to wiser heads than mine. The idea is there, and it seems to me to be worth pursuing. It would prevent the disastrous partition of holdings into very small plots, which has in the past led to lamentable consequences ; it would tend to encourage industry; and it introduces a system of in-

heritance which is likely to appeal to the Indian mind. It provides for one successor to the land without those objections to primogeniture which are very real objections to Indians, and it enables the other sons to make a start in life with a reasonable amount of capital for their status.

The above remedy is suggested to meet the evil of the partition of the land into small holdings, and the proposal is made with the view of preventing the holdings from being subdivided below two-plough areas so that one-plough area would be sufficient to keep his family going, while the area of the other plough would enable him to start in life as cultivators, traders or in military or other service, those of his sons who were excluded from succession to the land.

The secondary evil of the fragmentation of holdings could be easily remedied by the Punjab system of squares and rectangles which is adopted in the Punjab Colonies, and is termed *Murabba bandi* and *Killa bandi*. I may briefly explain the system that was adopted in colonizing Crown lands which came under the command of the Chenab and Jhelum canals. The land was divided into squares—each square being 1100ft. by 1100ft., equal to 27·8 acres. Each side of the square was divided into 5 parts, thus making 25 small squares and as each of these squares was 1·1 acres, and not a whole acre, it was called by a conventional term *Killa*. Thus the whole country was divided into squares and sub-squares, and was called the system of *Murabba bandi* and *Killa bandi*. Since there was a difficulty experienced in calculating the assessment on a *Killa* which was a little over an acre, the land instead of being divided into squares, was divided into rectangles in the new Triple Canal Scheme—each rectangle being 1,000 ft. by 990 ft. equal to 25 acres exactly—and thus the sub-rectangle came to 1 acre exactly. This at once simplified calculations of assessment and water, and presents aesthetically a very neat appearance when the fields are studded with crops inasmuch as each field is a rectangle.

II. THE LAND REVENUE AND ITS BURDEN ON THE PEOPLE.

The figures of land revenue taxation and its incidence on the people, both in British Territory and Native States, are collated in the tables XV to XVII. The figures for British Territory at least

look so small that one naturally infers that the taxation is very light, and so it is, but there are several causes such as, the law of inheritance and fragmentation of land discussed above which operate to make even this taxation, light as it is, press so heavily on the people that a substantial part of the land remains fallow, and in many cases the landowners find it more remunerative to adopt other vocations and pay the land revenue from their earnings rather than till the land owned by them.

From time to time theories have been propounded by the well-wishers of India, that the exorbitant demands of the land revenue system of the Government are the prime cause of the poverty of India : and men like Sir Romesh Chunder Dutt, Mr. Digby and Dr. Dadabhai Naoroji have, with one accord, expended much rhetoric and argument in the attempt to prove that the remedy lies in the institution of permanent settlements thereby relieving the agriculturist from the vexation and uncertainty of periodical resettlements. With due deference to these eminent authorities, I, for one, am unable to accept the solution they propose as either effectual or equitable. It is not fair that Government should be cut off from all participation in the progressive increase in the value of land, and with the experience of the permanent settlement of Bengal before us which has led to the enrichment of a few zamindars without bringing any corresponding measure of prosperity to the tenants, the proposal stands self-condemned. It received at the hands of Lord Curzon a most vigorous and crushing demonstration of its fallacy in his famous resolution issued on the 16th January 1902, though the Government of the late Viceroy were constrained to make the following frank admission as to the drawbacks of fluctuating assessments in para. 36 of the resolution :

"The Government of India freely admit that a fluctuating assessment in the sense of an assessment without a definite maximum limit in cash, and annually varying with the out-turn of crops, is exceedingly difficult to work with fairness, throws an undesirable amount of power into the hands of subordinate officials, and lacks the influence for thrift which has been the desire of Government to secure in its land revenue policy".

The right of the State to participate in the produce of the land has been handed down to the British Government as a legacy from India's ancient rulers. This right is not questioned. All

that we have to consider is the manner of collection, which should be fair to both, and not be oppressive to the poor.

In olden days the State's "share" was taken "in kind" and not in cash. The old system had its disadvantages, yet it had its advantages too. Among the latter was an all redeeming feature which is absent from the present system, *viz.*, that the cultivator retained his share, however small, and even in a lean year there was a residue left to him.

If the season was favourable and the harvest a good one, the Government ("Sirkar") benefitted by receiving a larger share, but after all it was large only in proportion. On the other hand if the yield was scanty, the "Sirkar" had to be content with a proportionately diminished quota; and if through failure of rain or other calamity there was no produce, Government shared the vicissitudes of the cultivator and had to forego its revenue altogether, a system which was eminently fair, and so impressed the popular imagination that the authorities were never blamed by the people for disasters which affected them and their rulers also with equal impartiality. Unfortunately, this equitable system of levying taxation in kind was superseded by a system that calls for a yearly cash payment of a sum fixed by "Periodical Assessment" based on the average yield for the last five years. It may be admitted that this method quite fairly takes into consideration both good and bad years, but the demand is assessed on from 50 % to 83 % of the landlord's rental, as well as on the basis of from one-tenth to one-fifth share of the gross produce of the land.

In regard to the present system of land taxation I do not think I can write more strongly than what the Government have, in their resolution, admitted in condemnation of this system.

"The gross produce standard, while it favoured more fertile lands, pressed with extreme severity on the poor. The truth is that the Assessment of Revenue is subject to so many complicated and varying conditions that any attempt to reduce it to any exact mathematical proportion, either of gross or net produce, would not only be impracticable but would lead to the placing of a burden upon the shoulders of the people from which, under a less rigid system, they are exempt."

In 1911 I essayed a suggestion which I published in the form of a pamphlet called 'A Great Indian Problem and a Suggested

Solution', and this suggestion, based on Government statistics, brought to the coffers of Government more than what they received under the prevailing system, and yet left a large portion of the population untaxed, by placing an enhanced burden on the rich, *but not more than was equitably due from them.* It left the bulk of the population free from any taxation, because they had no surplus to pay from. The substance was as follows :—

"My plan involves the abolition of the present Land Revenue System altogether, substituting a Produce Tax of one-sixth of the value of each, and every product of the land, including cereals, live animals, hides and skins, on everything, in fact, which is dependent upon the land. *This duty I would charge on all such produce brought to the Railway Station, whether it be for Provincial consumption, for transfer from one Province to another, or for export to other countries, exempting only a certain local radius intended to cover home consumption.*

"I will now ask the reader to consider whether my proposed plan, founded on the eminently fair old-time payment of a tithe, is, or is not, a satisfactory solution of the problem? Is not the principle a sound one which imposes on the Government the obligation to share in the vicissitudes of the people under its care? And are not the present vicissitudes of India, and the fortunes of its people, largely dependent on the produce of the land? My method is a simple one, it is true, but its simplicity makes it all the more practical. This tithe system occurred to my mind one day while reading the annual budget statement and trade review of the year. I noticed that the export of the products of the land was over 100 millions. Now, I said to myself that if it is admitted that the Government's share in this produce of the land was as much as one-fifth, then there was 20 millions revenue to be obtained in this manner straight away. Twenty millions was the total Land Revenue shown in the budget statement. At once it occurred to me that this was a simple way of collecting the Land Revenue. Why go into the intricate and oppressive details of the present system of Revenue collection, when by imposing a simple Produce Export Duty equal to one-fifth the value the Government could collect the same amount? In other words, why not charge only the surplus and leave the home consumption free. Further careful consideration of the matter served to convince me more

and more that the method would eliminate all the imperfections of the present system, whilst still securing a proper share mathematically and automatically calculated, and at the same time leaving free a liberal share for local consumption of the produce of each man's land.

"The total Land Revenue as at present collected by the Government of India in British India is 20 millions sterling. The Native States collect a total of 15 millions gross. No figures are available to show how much of this is land revenue, but for our present purpose let us say 10 millions. This makes 30 millions in all. The cesses for the Local Boards for the whole of India would come to about 10 , increasing the sum to 33. Now, supposing we put down 20 as sufficient reserve for famine and other calamities, that brings the total up to 40 millions. If I can prove from Government statistics that by levying an export duty equivalent to one-sixth the value of each man's surplus produce, the duty to be levied at the Railway Station, as I have already stated, the loss of revenue involved by the surrender of the present system can be more than made good, I think I shall have made a good *prima facie* case for the Government to consider my proposal favourably."

This would certainly lead one to the conclusion that, on an average, the people did not discharge their legitimate obligation to the State. This, I am obliged to admit, is a fact, but it is nevertheless inevitable under the present unmethodical and illogical system, because it is impossible to predict with any degree of accuracy for 20 or 30 years ahead, whatever the period of settlement may be, the precise condition of the land produce, or the fluctuations in rates consequent upon the vicissitudes of seasonal conditions which might prevail in this country as well as in other parts of the world.

This suggestion of mine, unfortunately, did not find favour with the revenue authorities, not because of any obvious defect or logical fallacy, but simply, first because it appeared too lavishly liberal to the bulk of the population; and secondly because it yielded an uncertain income. This is an ideal method of indirect taxation on the surplus. The possible objections to and advantages of this system were summarised in my pamphlet as follows :—

"I think it advisable, before proceeding further, to deal with the objections which might be levelled against this system.

" (1). A casual reader of these notes is likely to remark 'Oh ! this would at once paralyse trade, because the cost would fall on the buyer.' This is quite an erroneous idea, as I shall prove.

" Anyone who is acquainted with the trade of a country which exports the bulk of its produce, as India does, knows what such an additional charge would mean. It would mean no more nor less than an extra item to be added to the cost of transit to a certain destination, whether land or sea, as the case may be.

" Owing to our connections with foreign countries, Indian products are in all the markets of the world, and our market rates are governed by the foreign demand. The rate at seaports is not dictated by us, but is dictated by this foreign demand, and the local markets all over India are governed by the rates prevailing at the nearest sea port, minus the cost of transit. In fact, it is a question of supply and demand. Every morning there is telegraphed from the seaports to all the markets and emporiums all over India, news as to the seaports' requirements, and the prices at which the purchasers are willing to buy. These prices are worked backward to all markets, and the ruling rate of each local market is the rate at seaport, minus the cost of transit, *i.e.*, railway freight, insurance, brokerage, commission, etc., etc. If, therefore, a certain percentage is added to the cost of transit, it only means that the local market would fall by that amount, and the burden would logically, and legitimately, fall upon the producer.

" To make my meaning clear about the working backwards of the rate, take the instance of wheat. When it sells at 6 Rs. a cwt. in Bombay, the cost of transit to Delhi being nearly 1 Re., it will be seen that when the Bombay rate is 6 Rs., Delhi rate is 5 Rs. If another 12 Annas or 1 Re. a cwt. is added, the Delhi rate must fall by that amount, and the producer bears the burden. On the other hand, the producer is freed from all the vexatious collections of Land Revenue and from certain enormous extortions to which he has to submit.

" (2) A second objection is that if the farmer and producer, or whatever you call him, knows beforehand that his produce is going to be further taxed 16 % for the Government Exchequer, he would hesitate to sow any crops, and hence agriculture in India would be discouraged.

"In refutation of this argument I have only to bring the reader's attention to the fact that the fluctuation in prices between the times of sowing and reaping crops is greatly in excess of 16 to 20%. At the time of sowing a farmer never knows under the present system of foreign competition what he is going to get for his produce. The rate, I venture to repeat, does not depend on what is produced in India, but upon the demand in the markets of the world.

"Another class, and a very important class too, who would benefit by this system, and for whom relief is very much needed (and for whose relief the Government is trying wrong and unscientific channels) is the *middle class*. The middle class are not producers, but they would automatically benefit under my system, inasmuch as they would then get the products of their districts cheaper to the extent of the Produce Export Duty, because the market rate must inevitably fall to that amount.

"The advantages may, therefore, be thus briefly summarised:—

"(1) The Government will be placed in the proud position of being able to announce to the people that they have resolved on a system which taxes the Export surplus and not the local consumption.

"(2) The middle class, whose expenses have increased owing to reasons given in the opening part of my pamphlet, will be able to buy the produce of their districts 16% cheaper—a very great boon indeed.

"(3) The fertile lands will bear a right and proper burden as compared with poor land the reverse is the case now, as so frankly admitted by the Government of India.

"(4) It is admitted on all hands that it is very unfair to exact a fixed demand in a country where produce fluctuates so much, as the result of such causes as failure of rain, visitation of locusts, frost and several others quite beyond human control. It is only in accordance with a law of human nature that we are not grateful if we have to pay less than what is legitimately due from us, but are ready enough to grumble when we are called upon to pay what seems too much in a poor year, a law which tells so severely on the peasants. When they get a bumper crop, and have only to pay Government a revenue equal to perhaps one-twentieth of their

produce instead of one-sixth, they naturally spend the rest in festivities, marriages, and other worldly wants. If, however, in any one year owing to natural calamities, the produce falls short or fails altogether, having saved nothing for such unfortunate periods, and having no resources to fall back upon, they run into debt, from which owing to heavy cumulative interest they rarely extricate themselves."

Although I still hold that the indirect method above suggested is not only a practicable, but, I may say, an ideal way of raising an enhanced revenue, and that by a method which would scarcely be felt by the people, I will now proceed to give another the soundness of which is capable of even still more mathematical and incontrovertible demonstration; and which while proving an equal boon to the people, will bring yet more money to the Government Treasury, and that with a minimum trouble in collection and the avoidance of the expense, vexation and worry of periodical settlements.

In regard to my second method I would invite a reference to Chapter IV. My proposal is that we should take advantage of this novel method and redeem the Government share of the land revenue by accepting 30 years' revenue in cash. This money could be deposited in a Government Central Bank, or lent to other Banks at 4 per cent., and the table given in Chapter IV shows that the Bank would be able to make regular payments to the Revenue Department for 30 years and after 30 years to pay 25% more, and after a period of 70 years, the capital would be doubled, thus enabling the Government to spend out of its accumulated assests an equivalent sum on other improvements to the land while still maintaining the same ratio of enhancement of revenue. Now I would join issue with any one who can prove that Government has ever obtained enhancements of the revenue in this proportion. The people would thus be free to make improvements without the sword of Damocles always hanging over their heads, by which I mean the corroding and enervating fear of recurring settlements with all their attendant worries and vexation and the certainty that a substantial portion of the fruits of their industry will be wrested from them. My method has, moreover, three very important political advantages first—it will establish a deep-rooted loyalty to the British Government amongst the masses; second—it

will bring out any hoarded wealth which there may be in the country; and third --it will afford the ways and means to finance the industries of the country which Government has so much at heart, and which, as I will explain in Chapter IV, is the only possible palliative for the increase of population. This system will further solve the vexed problem of the Permanent Settlement, as however disastrous to the fiscal interests of the Government this much debated measure may have proved in the past, the revenue will henceforth increase by 25 per cent every 30 years.

III. THE METHOD OF CHARGING WATER RATES BY THE AREA CROPPED AND THE NATURE OF CROPS.

The present method of determining water rates is manifestly unscientific, and gives no incentive to the cultivator to conserve the area and to produce profitable crops requiring the least amount of water. The question was recently discussed at great length in the conference held at Simla on the 12th and 13th September, 1917, under the presidency of the Financial Commissioner, Punjab. It was recognised at this conference that the ideal and scientific method of charging the occupier for water rates would be a metric system, which would admit of the water being measured at the outlet, somewhat on the "Penny in the slot" principle; so that the cultivator could take as much as he liked when he needed it, and shut it off when not required.

This system was pronounced unpracticable, and after considering the pros and cons of various systems. it was decided to start, as an experimental measure, the system of volumetric supply by measuring at the outlet, by means of some sort of module, the quantity of water passing through the outlet into the area, and charging the cultivator at so much per cusec multiplied by the average number of days that the canal is running subject to 10 % variation. This system will enable the cultivator to spread his water over as large an area as possible, to grow those crops which he finds most profitable, and to use the surlpus water for ploughing the lands which he has reserved for the cultivation of the next crop. He would thus be free from the harassing attention of canal officials, and have more time and inducement to economize water by such means as the extended system of *kiaries* (low ridges dividing the plots into small areas), and keeping his water-courses free from weeds and jungle.

CHAPTER IV

A NOVEL METHOD OF REDEMPTION OF LAND REVENUE WITH A SYSTEM OF FINANCING INDUSTRIES.

THE fact of accumulation of interest, how rapidly it increases with time, does not seem to be fully realised by the public, and in this connection I shall relate an incident which shows how this fact of accumulation of interest can be turned into profitable account in the interests of the Government as well as the people.

Talking over the question of interest, how rapidly it accumulates, a Marwari spoke to me one day thus, "Just guess what one rupee will become in 100 years if interest at 12 % per annum be compounded yearly." "Well," I said "I do not know ; perhaps Rs. 100." "No" replied my friend, "more near a lakh than a hundred" "All right," I said, "let me calculate." I looked up the formula for compound interest, and found that

$M = P\left(1+\frac{r}{100}\right)^n$

where M = total amount
P = principal
r = rate of interest per cent per annum
n = number of years, or periods at which it is to be compounded.

Taking P = 1
r = 12
n = 100

we get $\log M = \log P + n \log 1{\cdot}12$

$\therefore \log M = \log 1 + 100 \log 1{\cdot}12$,

but $\log 1{\cdot}12 = {\cdot}04922$

$\therefore 100 \log 1{\cdot}12 = 4{\cdot}922$

and since $\log 1 = 0$

$\therefore \log M = 4{\cdot}922, \therefore M = 83{,}660$

I was surprised at the result. Then I thought I might work the problem, if the interest was compounded half-yearly. That means there will be 200 half-yearlies, r being 6.

Hence log M = 200 log 1·06

$$= 5{\cdot}062, \therefore M = 1,15,500$$

I was astounded at these figures, and I gave full credit to my friend the Marwari.

I did not, however, stop here. I worked out a table marked A for 100 years of what one rupee will amount to at rates varying from 3½ to 8 per cent. interest being compounded half-yearly. Another table marked B is similarly worked out with interest compounded yearly. Now I give a novel solution of the *Land Revenue* and the *Industrial Problems* as follows:—

First of all I propose that the period of settlement be fixed at 30 years, and let the Government make a rule that after 30 years the Revenue will increase by 25 per cent. This was the tenor of Lord Curzon's policy.

Taking for granted that the Government agrees to these two fundamental principles, let a rule be made that any one paying 30 years' Revenue beforehand will be eligible for exemption from Revenue for ever. This money should be paid into the Banks of Bengal, Bombay, and Madras which are semi-Government institutions, or with the Government Central Bank, which might be instituted as recommended by the Finance Commission. These Banks will with the interest of the money be able to pay the Government Revenue regularly on these terms, the interest being reckoned at 4 ½ per annum compounded yearly as I have worked out in a pass book form for three periods of 30 years each (see table C). This will enable the Government Banks to be in a position to finance industries extensively.

This method of redemption of land revenue by 30 years' purchase has the following advantages:—

First—It saves the worry and expense of making periodical settlements, and thus leaves the cultivator free to make his improvements without any harassment or fear of the prospective increase of revenue.

Secondly—It saves the trouble and suspense of yearly collections and gives a fixed revenue to the Government regardless of the calamities of the season. It also assures to the Government an increase of 25 % in their revenue after 30 years, and at the same time doubles the capital after 70 years, as the following calculations will show.

	Rs.	Rs.	A.	P.
After 30 years one rupee will become ...	1·25 or	1	4	0
„ 60 „ „ „ „ ...	1·56 or	1	9	0
„ 90 „ „ „ „ ...	1·95 or	1	15	2
„ 120 „ „ „ „ ...	2·44 or	2	7	0
„ 150 „ „ „ „ ...	3·04 or	3	0	8

Thirdly—It automatically rectifies the mistake of permanent settlement, because once the zamindars have purchased the Government rights by paying 30 years' revenue, Government will begin to get their increase by 25 % every 30 years.

Fourthly—It solves the industrial problem as explained above. In this connection it may be noted that in British India alone the increase of population in thirty years from 1881 to 1911 has gone up from 199 millions to 244 millions which means an increase of 23 per cent. While we may reasonably look forward to the expansion of the cropped area and to increase in the yield of land, yet there is a limit to both these sources of increase, but there is no limit to increase of population. Hence it is absolutely necessary that a portion of the population should now be directed to industries, but no industries can prosper without capital, and this method which I propose is a very good way of financing the banks so as to enable them to finance the industries.

I have one other proposal to make in this connection of banking which, although not bearing directly on the subject in hand, will yet be of some interest to the reader. It is that these banks should, in future, take deposits at 4 % compound interest (half-yearly compounded, if possible, as per table A) and give depositors a cash certificate, somewhat in the form of the postal certificates recently issued by Government for the War Loan, payable after 5 years or any multiple of 5 years for the sum calculated in this table. I know from personal knowledge that people will give large deposits for various purposes, for instance, provision for children, endowments etc., if they are quite sure that they get compound interest without any trouble.

This system can be profitably adopted for establishing a Provident Fund, thus:—

Take the case of a civilian, for instance, who has to serve 35 years in the country. Divide his term into 7 periods of 5 years each and supposing he can save

during the first period	(*a*)	Rs.	5,000	or Rs.	1,000	per annum.
„ second „	(*b*)	„	10,000	or „	2,000	„
„ third „	(*c*)	„	15,000	or „	3,000	„
„ fourth „	(*d*)	„	20,000	or „	4,000	„
„ fifth „	(*e*)	„	25,000	or „	5,000	„
„ sixth „	(*f*)	„	30,000	or „	6,000	„
„ seventh „	(*g*)	„	30,000	or „	6,000	„

Total payments ... 1,35,000

(*a*) will become at the end of his service, for $32\frac{1}{2}$ years as per table A ... ... Rs. 18,225

(*b*) will become at the end of his service, for $27\frac{1}{2}$ years as per table A ... ... Rs. 29,900

(*c*) will become at the end of his service, for $22\frac{1}{2}$ years as per table A ... ... Rs. 36,450

(*d*) will become at the end of his service, for $17\frac{1}{2}$ years as per table A ... ... Rs. 40,200

(*e*) will become at the end of his service, for $12\frac{1}{2}$ years as per table A ... ... Rs. 41,250

(*f*) will become at the end of his service, for $7\frac{1}{2}$ years as per table A ... ... Rs. 40,800

(*g*) will become at the end of his service, for $2\frac{1}{2}$ years as per table A ... ... Rs. 33,600

Total ... 2,40,425

Thus the civilian will take home a very respectable sum of about Rs. 2,40,000 which will add to his pension another Rs. 10,000 a year, with this difference that this ten thousand will be for ever, and not end with his life.

TABLE A.

Showing what one rupee will amount to at the end of different periods at various rates of interest (compounded half yearly.)

At the end of	at $3\frac{1}{2}$ per cent.	at 4 per cent.	at $4\frac{1}{2}$ per cent	at 5 per cent.	at $5\frac{1}{2}$ per cent.	at 6 per cent.	at $6\frac{1}{2}$ per cent.	at 7 per cent.	at $7\frac{1}{2}$ per cent.	at 8 per cent.
5 years ...	1·16	1·23	1·25	1·28	1·31	1·34	1·38	1·41	1·44	1·48
10 „ ...	1·34	1·49	1·56	1·64	1·72	1·80	1·89	1·99	2·08	2·19
15 „ ...	1·56	1·81	1·95	2·09	2·25	2·43	2·61	2·80	3·02	3·24
20 „ ...	1·81	2·22	2·44	2·68	2·96	3·27	3·59	3·96	4·36	4·80
25 „ ...	2·10	2·69	3·04	3·41	3·88	4·39	4·95	5·58	6·30	7·11
30 „ ...	2·44	3·29	3·80	4·40	5·09	5·90	6·80	7·87	9·09	10·5
35 „ ...	2·83	4·00	4·75	5·03	6·68	7·92	9·37	11·1	13·1	15·6
40 „ ...	3·28	4·87	5·92	7·20	8·76	10·6	12·9	15·7	19·0	23·0
45 „ ...	3·81	5·95	7·40	9·22	11·5	14·3	17·8	22·0	27·4	34·1
50 „ ...	4·46	7·25	9·25	11·8	15·1	19·3	24·1	31·12	39·7	50·5
100 „ ...	19·5	52·5	85·5	139	227	370	598	969	1570	2550

TABLE B.

Showing what one rupee will amount to at the end of different periods at various rates of interest (compounded yearly)

At the end of	at $3\frac{1}{2}$ per cent.	at 4 per cent	at $4\frac{1}{2}$ per cent.	at 5 per cent.	at $5\frac{1}{2}$ per cent.	at 6 per cent.	at $6\frac{1}{2}$ pet cent	at 7 per cent.	at $7\frac{1}{2}$ per cent.	at 8 per cent.
5 years ...	1·19	1·21	1·25	1·27	1·31	1 31	1·37	1·40	1·43	1·47
10 „ ...	1·41	1·48	1·55	1·63	1·72	1·79	1·87	1·96	2 06	2·16
15 „ ...	1·67	1·80	1·93	2·08	2·26	2·40	2·57	2·76	2·96	3·17
20 „ ...	1·99	2·19	2·41	2·65	2·97	3·21	3·52	3·87	4·25	4·66
25 „ ...	2·36	2·67	3 00	3·39	3·90	4·29	4·83	5·42	6·10	6 85
30 „ ...	2·81	3·24	3·74	4·32	5·12	5·75	6·61	7·61	8·75	10·05
35 „ ...	3·33	3·94	4·66	5·51	6·71	7·69	9·06	10·7	12·6	14·8
40 „ ...	3·94	4·80	5·81	7 04	8·83	10·3	12·4	15·0	18·0	21·7
45 „ ...	1·70	5·84	7·24	8·99	11·6	13·7	17·0	21·0	25·9	31·9
50 „ ...	5·58	7·11	9·03	11·5	15·2	18·4	23·3	29·5	37·1	46·9
100 „ ...	31·1	50·5	81·5	132·0	231·8	340·0	542·6	867·0	2198·0	2200·0

TABLE C.

Taking a concrete example of 100 acres paying Rs. 3 per acre.

Year.	Capital	Revenue.	Balance.	Interest at 4 %	Capital forward.
1	9,000	300	8,700	348	9,048
2	9,048	300	8,748	350	9,098
3	9,098	300	8,798	352	9,150
4	9,150	300	8,850	354	9,204
5	9,204	300	8,904	356	9,260
6	9,260	300	8,960	358	9,318
7	9,318	300	9,018	360	9,378
8	9,378	300	9,078	363	9,441
9	9,441	300	9,141	366	9,507
10	9,507	300	9,207	368	9,575
11	9,575	300	9,275	371	9,646
12	9,646	300	9,346	374	9,720
13	9,720	300	9,420	377	9,797
14	9,797	300	9,497	380	9,877
15	9,877	300	9,577	383	9,960
16	9,960	309	9,660	386	10,046
17	10,046	300	9,746	390	10,136
18	10,136	300	9,836	393	10,229
19	10,229	300	9,929	397	10,326
20	10,326	300	10,026	401	10,427

TABLE C.—*contd.*

Year.	Capital.	Revenue.	Balance.	Interest at 4 %	Capital forward.
21	10,427	300	10,127	405	10,532
22	10,532	300	10,232	409	10,641
23	10,641	300	10,341	414	10,755
24	10,755	300	10,455	418	10,873
25	10,873	300	10,573	422	10,995
26	10,995	300	10,695	427	11,122
27	11,122	300	10,822	433	11,255
28	11,255	300	10,955	438	11,393
29	11,393	300	11,093	444	11,537
30	11,537	300	11,237	450	11,687
31	11,687	375	11,312	452	11,764
32	11,764	375	11,389	456	11,845
33	11,845	375	11,470	459	11,929
34	11,929	375	11,554	462	12,016
35	12,016	375	11,641	466	12,107
36	12,107	375	11,732	469	12,201
37	12,201	375	11,826	473	12,299
38	12,299	375	11,924	476	12,400
39	12,400	375	12,025	481	12,506
40	12,506	375	12,131	485	12,616
41	12,616	375	12,241	490	12,731

TABLE C.—*contd.*

Year.	Capital.	Revenue.	Balance.	Interest at 4 %	Capital forward.
42	12,731	375	12,356	494	12,850
43	12,850	375	12,475	499	12,974
44	12,974	375	12,599	504	13,103
45	13,103	375	12,728	509	13,237
46	13,237	375	12,862	514	13,376
47	13,376	375	13,001	520	13,521
48	13,521	375	13,146	526	13,672
49	13,672	375	13,297	532	13,829
50	13,829	375	13,454	538	13,992
51	13,992	375	13,617	545	14,162
52	14,162	375	13,787	551	14,338
53	14,338	375	13,963	558	14,521
54	14,421	375	14,146	566	14,712
55	14,712	375	14,337	573	14,910
56	14,910	375	14,535	581	15,116
57	15,116	375	14,741	589	15,330
58	15,330	375	14,955	598	15,553
59	15,553	375	15,178	607	15,785
60	15,785	375	15,410	616	16,026
61	16,026	469	15,557	622	16,179
62	16,179	469	15,710	628	16,338

TABLE C.—*contd.*

Year.	Capital.	Revenue.	Balance.	Interest at 4 %	Capital forward.
63	16,338	469	15,869	635	16,504
64	16,504	469	16,035	641	16,676
65	16,676	469	26.207	648	16,855
66	16,855	469	16,386	655	17.041
67	17,041	469	16,572	662	17,234
68	17,234	469	16,765	670	17,435
69	17,435	469	16,966	678	17,644
70	17,644	469	17,175	687	17,862
71	17,862	469	17,393	695	18,088
72	18,088	469	17,619	704	18,323
73	18,323	469	17,854	714	18,568
74	18,568	469	18,099	724	18,823
75	18,823	469	18,354	734	19,088
76	19,088	469	18,619	745	19,346
77	19,364	469	18,895	756	19,651
78	19,651	469	19,182	767	19,949
79	19,949	469	19,480	779	20,259
80	20,259	469	19,790	791	20,581
81	20,581	469	20,112	804	20,916
82	20,916	469	20,447	818	21,265
83	21,265	469	20,796	832	21,628

TABLE C.—*concld.*

Year.	Capital.	Revenue.	Balance.	Interest at 4 %	Capital forward.
84	21,628	469	21,159	846	22,005
85	22,005	469	21,536	861	22,397
86	22,397	469	21,928	877	22,805
87	22,805	469	22,336	893	23,229
88	23,229	469	22,760	910	23,670
89	23,670	469	23,201	928	24,129
90	24,129	469	23,660	946	24,606

CHAPTER V

AGRICULTURAL DEPARTMENT

All honour to Lord Curzon who instituted the Agricultural Department in 1904, though its importance and potentialities do not seem even yet to have been fully realised by the Government, nor the extent to which the prosperity of India's millions is wrapped up on the exertions and development of this last born but most promising of the great departmental family. The cost of this department has only now reached Rs. 5,286,426 (Imperial—753,582 and Provincial—4,532,844) during 1915-16, which divided by 315 millions gives an average of nearly one pice per head, or divided by the revenue of the country (32 crores) gives 2·7 pies per rupee. This department should, both as to personnel and activities, be expanded at least ten times and I venture to draw attention to some of its functions to which its activities should be chiefly directed.

(1) It should have a special branch for *plant breeding* to produce various seeds suitable to the soil of each locality which should give a maximum yield with a minimum of labour and should require as little water as possible for irrigation.

In Chapter II I have pointed out how the cultivator grows unprofitable crops, and in order to be self-contained tries to grow every thing in his own land, regardless of the nature of the soil's

(2) To add to our knowledge of useful crops in vegetables, cereals or drugs of commercial value. This knowledge is sadly wanted for the *kharif* crops in order to utilize the surplus water of the rivers. It has been recognised that the present canals, though they are designed to suit the winter supply of the river, have yet the capacity to carry much more water than they actually do during the *kharif* season if there was a demand for it. In order to create this demand the research and guidance of the Agricultural Department is indispensable. About the capacity of canals I will have more to say in Chapter VI.

(3) Sufficient importance has not hitherto been given by Government to the subject of the investigation of dietaries adapted

to promote and maintain the health of the people on a minimum quantity of food. In this connection I may note that the people require to be educated in the more extended use of vegetables, as at present the chief diet of the masses is rice and *dal*, or bread of some sort eaten with *dal*. There have been exhaustive investigations in this direction so far as the Jail population is concerned, but I am not aware of any such inquiry having been held for the people generally.

(4) The question of food-stuffs for cattle and horses is another direction in which this Department might extend its guiding hand. Demonstrations should be given for more extended use of maize which is a very good *kharif* crop for human food in the shape of corn flour, corn flakes etc., and also for its more extended use for animals. In England boiled maize is largely given to cattle and horses with proper medicinal condiments. If the use of maize was largely extended, it would lessen the pressure on wheat which would then be available for export and would be the means of bringing wealth into the country. In the United States the area under maize in 1913 was 107 million acres as against 7 million acres in India.

(5) The question of improving the quality and variety of fodder for cattle is another matter which has been neglected so far, and which during times of drought and famine causes more havoc to the peasantry than even the scarcity of grain. Last year, though it was a normal year, more than 20 lakhs was spent by the Punjab Government in paying the bulk of the railway freight required to provide fodder for the cattle of certain districts. In this connection I may note that the only crops so far known which provide fodder for the cattle are *juwar*, *guara* and *lucerne* (alfa alfa). Inquiries, experiments, and demonstrations are very badly needed to introduce good edible grass-seed, specially those which could be dried and stored for use during times of scarcity. I have visited the Mission Farm at Allahabad conducted by the Rev. Mr. Higginbotham, in which the rank grass of the river bank is turned into ensilage which can be preserved for at least two years, and which is voraciously eaten by the cattle.

In the Punjab there is that kind of grass all along the banks of rivers and also along the railway embankments, but it is either burnt or allowed to go to waste.

(6) Some system of storage for fodder either pressed or unpressed is admittedly necessary, but nothing effectual is likely to be accomplished unless it is inaugurated and, in its initial stages, guided by the Government. To provide against the ravages of famine it is necessary that each village should keep a fodder store containing a reserve sufficient for one year's consumption, which would go far to mitigate one of the most disastrous incidents of famine.

(7) What the Department have achieved in the way of promoting the growth of cotton, and in the introduction of long staple varieties is well known, yet there are millions of acres on which cotton can be profitably grown if demonstration farms were introduced in these tracts and the people were given opportunities to get suitable seed.

(8) Our dependence on imported sugar is to be very much regretted when there is plenty of land in the country to grow sugarcane. The only way, as it occurs to me, to give an impetus to the growing of sugarcane is for Government to set up small power-driven cane-pressing factories to make *gur*, such as there is one in the Agricultural Farm at Poona, and central factories to make refined sugar. The cultivator will thus be able to find a ready market for his cane without having to go through the process of extracting juice by bullock-power in those very months when his bullocks are required for sowing *rabi* crops. I make this suggestion after the experience of cotton, the cultivation of which is so largely increased since the introduction of ginning factories.

(9) People require to be guided as to the proper disposition of crops in order to secure a thorough rotation so that the soil is not impoverished by the growth of the same crop year after year. If people only knew the difference between leguminous and non-leguminous crops and the different varieties of each kind which could be grown on economical lines, the output would appreciably be great and the soil would retain its productive qualities.

(10) Guidance is necessary in the growth of trees which should give cheap fuel to the people, thus setting free the cow-dung which is largely used in villages as fuel thus depriving the land of the best manure it could get. In connection with this, Commissioner Booth Tucker informed me that there is a variety of Australian eucalyptus which could be grown with immense profit.

CHAPTER VI.

IRRIGATION DEPARTMENT.

The system of canals in India is unique of its kind in the world, and has probably done more to reclaim the soil, alleviate suffering, preserve life, avert famine and advance the material prosperity of the country than any other single measure for which the British Government is entitled to take credit; and yet great as its achievements have been, there still remains scope for improvement and expansion. I will mention a few matters which occur to me as of outstanding importance.

(1) First and foremost is the desideratum of the officers of the department being imbued with a thorough sympathy with the cultivator, and induced to study more sedulously his wants and needs. The rigid rules and regulations of the department require relaxation so as to ensure that the charges for water do not operate oppressively. They should be lowered in certain cases so as to stimulate the growth of coarse grain for the masses and fodder and grass for the cattle. The deficiency in revenue might be made good by raising the rates on more profitable crops.

(2) The question of water rates requires thorough overhauling not only in the interests of the cultivator but also in the interests of State revenue. There is no rule at present and the rates vary from canal to canal even in the same province, see table XXI. It is only fair, I think, that the Irrigation Department should have a share in the rise of prices, and hence the rates should be revised, say, every five years. I think it to be a very good rule to lay down a formula that the water rate shall be equal to one-tenth of the gross produce per acre calculated at the average price of the last five years.

(3) In certain provinces, for instance the United Provinces, where the rainfall is usually high, the demand for canal water varies according to the nature of the rainfall. This difficulty was recognised by the Irrigation Commission in their Report, but no practical remedy was suggested. I can not suggest a proper solution, but it is a question of the greatest importance for the State as well as

the zamindar, and should be well thrashed out by a committee of experts. One solution, as it appears to me, is to allow the cultivators to use the water free of cost in ploughing up their lands for the *rabi* and to withdraw the present condition of the charge being made for such water (technically called *wahan* rate in the Punjab). After all, water used in ploughing up lands will do some good to them whether it is followed by a *rabi* crop or not. Another solution would be to seek large hollows and *jhils* in which water could be made to escape and then used up for the *rabi* crops by pumping or flow as the case may be. Still another solution would be to extend the system of inundation canals and thus bring the canal water within reach of the outlying districts. The investigation of profitable rainy crops to which I have referred elsewhere will also tend to more extended use of water during the rains.

(4) Most of the inundation canals now usually run from March to the end of October, and although the *rabi* crops are sown by the water of these canals, such crops sometimes fail for want of two waterings, and as a result of this deficiency and uncertainty the Irrigation Department and the Revenue Department lose a large amount in water rates and land revenue. By supplying two waterings in the winter during normal years, and, say, three waterings at the very outside in years of drought such canals fail to be classed as perennial canals. Usually such canals fail for want of levels in the rivers and not for want of water. As an illustration, take the case of *Katora* canal in the Punjab for which I have roughly worked ont a scheme. The normal winter level of the river is the same as the bed level of the *Katora* canal; thus a seven-feet lift at the head can mature the *rabi* crops and make the *kharif* crops quite certain. The increase of revenue would be Rs.2,85,000 and the cost of working the pumps for six months would be Rs.1, 26,000. The initial cost of pumping installation at pre-War rate would be 4 lakhs interest of which at 6% would be Rs 24,000 plus depriciation charges at 6% another Rs. 24,000, total Rs.48,000; and thus the net profit would be Rs 1,11,000. This is the profit in water rates and revenue only and does not take into account the value of crops raised.

CHAPTER VII.

AGRICULTURE—A PROFESSION.

It is one of the most critical problems of the day in nearly all civilised countries and especially in India that the professions open to young men are getting more and more hopelessly overcrowded, and that the openings in those professions are not keeping pace with the output of the universities. The only professions which are now open to young men in India are law, medicine and engineering; but the most profitable of all, and the one of which the possibilities are, qua India, as yet untapped, is the profession of farming. People in India are sadly mistaken in thinking that a person who does not possess land of his own can not pursue this profession. In America and Europe young men used to go to farming, because it was the one occupation which was supposed to require no preliminary training. To-day the advanced farmer comes to his calling as fully equipped with scientific and scholastic attainments as the lawyer, the editor, the doctor and the captain of industries, for it is a curious fact that the calling in which the untrained man was once supposed to have as good a chance as the educated one, has now become the calling in which a wide and varied knowledge is as imperative as in any other profession. Mr. Todd in his lecture on agriculture very forcibly pointed out four distinct factors which play an important part in farming, namely: --

(1) *Land* which brings *rent*.
(2) *Labour* which brings *wages*.
(3) *Capital* which brings *interest*.
(4) *Organization* which brings *profit*.

In this country there is *land* which brings *rent*, and the man who enjoys this income is a zamindar. There is also *labour* which brings *wages*. This goes to the tenant or cultivator. But the fruits of *capital* and *organization* are disappointingly absent ; and it will be seen that these two important elements, *c. g.*, *capital* and *organization*, if properly brought into play will yield much more than *rent* and *wages* put together. Herein lies the necessity of introducing the farmers' profession. At present the country loses the profit and a most healthy and remunerative profession is lost to the rising generation. In America and England it is only within the last

forty years that the public have given to this profession the attention it deserves; and I do not see why we should not in India expect the same development in the profession of farming which has occurred in America. The possibilities of this profession in India, with its varied climate and varied soils, are as yet quite unexplored. It may be noted that this profession is not limited to the bare tilling of the soil, but there are unlimited offshoots of which I shall cite a few.

You want a *professional chemist* to analyse the soil, and to show you its composition and the conditions in which its various constituents exist, the composition of various crops, and the various manures which must be used to supply absent or exhausted elements. Then you want a *bacteriologist* to tell you how to inoculate the soil with fertilising bacteria. Again you require a *botanist* to tell you the various processes of vegetable life, and to indicate the conditions which the farmer should try to secure for the growth of crops ; yet again an *entomologist* is wanted to combat insects and other pests which are injurious to the growth of crops and stocks. And last but not the least, you need an *engineer* to guide you in making your wells and to tell you the right kind of engines and pumps to use.

Another branch in which there are immense possibilities of development in our country is the *fruit industry*. Look at the possibilities of fruit growing in the Hymalayas only. In America in 1870 the export of fruits preserved in cans or otherwise, amounted in value to 82,000 Dollars.

In 1880 it developed to 3,71,000 Dollars.

In 1890 it developed to 6,00,000 Dollars.

In 1904 it developed to 26,77,000 Dollars.

In dried fruits American trade has gone up from zero in 1870 to 50 million pounds in 1914 (34 years).

Prunes 73 million pounds

Raisins 7 „ „

Dried apples 50 million pounds.

The total value of fruits exported in 1870, was 5,00,000 Dollars, in 1904 it had reached 20 million pounds.

I would recommend the introduction of the profession of scientific farmers properly trained in agricultural chemistry, botany and entomology. Let these men lease the land from the zamindars and start cultivation on scientific lines. They will supply the deficit items, namely *capital* and *organization*.

CHAPTER VIII.

LOSS OF RICH MANURE TO THE COUNTRY BY THE EXPORT OF BONES.

This form of commercial activity is one which within recent years has undergone phenomenal expansion, but it is fraught with the most deleterious results to the productive capacity of the soil and, therefore, to the welfare of the country and a remedy, by legislation, is most urgently called for to empower the Government of India to lay an embargo on the export of the most valuable manurial agent available in the country. The subject has been so ably dealt with by Sir Thomas Holland, the President of the Industries Commission, in an article in the *Indiaman* that I take the liberty of reproducing his remarks below :—

" Sir Alexander McRobert's letter in THE INDIAMAN of November 26 usefully brings into correlation the two important facts: (a) that the export of bones forms a serious annual and uncompensated loss to India, and (*b*) that India is relatively deficient in visible stocks of mineral phosphate. . . . . .

" These two points are developed in the first review of Indian Mineral Production which I published eleven years ago (Records, Geological Survey of India, Vol. XXXII., p. 112), and the following comment then made has been repeated, with obvious necessity, in every subsequent quinquennial review (see Records, Vol. XXXIX, P. 266, and Vol. XLVI., p. 282):—

" ' One regretful feature in connection with the Indian mineral resources is the absence, in a country where agriculture is such a predominant industry, of any phosphatic deposits of value, and a further circumstance to be regretted is the continued export of phosphates in the form of bones, due primarily to the fact that, being without means for the manufacture of cheap sulphuric acid, superphosphates are not made in the country, and the little that is used is imported from Europe. '

" During the fifteen years, 1898-1913, the average annual export of bones from India amounted to 90,115 tons, valued, at the port,

at £361,129. In some years the tonnage exceeded 100,000, while the export price—which is well below the market value—was returned as over £500,000.

"The loss of a mineral phosphate is far more important than that of the gelatin and other organic compounds obtainable from bone-oil, as a *mineral* fertiliser can never be renewed; every ounce that leaves the country is a permanent and irrecoverable loss of capital, although in some cases it may be relatively small; and in this respect phosphatic fertilisers differ from nitrogenous, as the latter are renewed from the atmosphere by the action of bacteria, which, like their more numerous and deleterious cousins, work energetically and for nothing in a moist, warm climate.

"It is not possible to say that the annual loss of bone by export makes any appreciable inroad on the total available stocks of phosphate in the soil, which in mere figures would look formidable. It is nevertheless interesting to compare the direct loss in this way with that due to the export of grain crops. The bones exported represent an annual removal of just 22,000 tons of phosphoric acid, while the various forms of grain exported, amounting from 5,000,000 to 6,000,000 tons annually, represent a loss of about 20,000 or 25,000 tons of phosphoric acid. But while the bones bring about £500,000 the grain crops are worth £40,000,000, the remainder of the grain being materials which are in abundance in all soils or are obtainable from the atmosphere.

"The writer of the 'Note' in THE INDIAMAN of October 1 and Sir Alexander McRobert have separately accentuated the two chief ways of utilising bones. Both forms have their uses but there is an advantage in using superphosphate, when cheap, country-made sulphuric acid is obtainable; for the valuable organic compounds amounting to nearly half the weight of the bones, can and should be recovered before the phosphatic residue is treated with sulphuric acid. The fact that the soluble phosphate is rendered insoluble as Sir Alexander points out, by reaction with the soil is only a theoretical objection, as the soluble calcium phosphate is thus precipitated by the constituents of the soil in a state of molecular subdivision which makes it just as 'digestible' to the plant. This immediate precipitation of a water-soluble plant food in an excessively fine but insoluble form is an advantage, for the material remains available for the plant to deal with at leisure, instead of being carried to lower levels or away altogether by the circulating sub-soil water.

"This minor point of difference between Sir Alexander Mc Robert and the writer of your 'Note' must not be allowed, however, to obscure the real lesson, which is the error of allowing an essential mineral fectiliser to leave an agricultural country already notoriously deficient in phosphatic deposits. And now we can add safely, what might have offended some of our broadminded economists before the war— it is even wrong to allow bonephosphate to go to foreign countries, which was the destiny of just four-fifths of the exported bones during and before 1913-14."

CHAPTER IX.

NATIVE STATES.

Though the relative area of Native States as compared with that of British Territory is as 5 is to 7, the proportion of population is only as 2 is to 7. This assertion is based on the following calculations. Total area of India including Native States is 1,151 million acres with a population of 315 millions, (see page, i and ii Agricultural Statistics of India, Vol. I., 1912-13.)

The total area of Native States is 498 million acres with a population of 71 millions (see page i Vol. II Agricultural Statistics of India 1912-13.)

Hence deducting 498 millions from 1,151, we get 653 million acres for the area of British India proper with a population of 244 millions. Therfore while the proportion of population is $\frac{71}{315} = \frac{2}{7}$ nearly, the proportion of area $= \frac{498}{653} = \frac{2}{7}$. Hence area for area the population is $\frac{2}{5}$ or less than half.

One reason for this disparity may be that a large part of the area occupied by the Native States is uncultivated jungle such, for example, as a large portion of Rajputana and Kashmir etc. But probably there are other factors also which operate on such a low proportion, amongst them I may cite a few:—

(a) high incidence of the land revenue rendering cultivation unprofitable and tending to induce the inhabitants to seek a livelihood in British territory or foreign countries,

(b) heavy customs and excise duties, and other imposts,

(c) want of protection against wild beasts destroying cultivation.

I am glad, however, to note that during the last decade from 1903-4 to 1912-13, Native States have generally made good progress, which is shown by the table on page 9. This is a matter for special gratification and if this rate of progression is maintained I confidently anticipate that this disparity will rapidly dwindle to a less conspicuous figure.

CHAPTER X.

CONCLUSIONS.

Such then are some of the problems and suggestions which I have with much diffidence and a deep sense of many imperfections in this recital ventured to submit to the thoughtful and earnest consideration of my readers. The sound solution of these and other cognate questions, it can hardly be doubted, will profoundly affect the prosperity and happiness of the people and the stability of the Government. I would conclude, with an earnest and respectful recommendation that the improvement and development of Indian agriculture be referred to a Commission, and would suggest that the Commission be instructed to direct their attention to the following matters :—

(1) To consider and report upon such measures as may be calculated to increase and stimulate the production of land.

(2) To encourage research in plant-breeding so as to produce varieties of seed suitable to the soil of all parts of the country.

(3) To discover and introduce new cereals, new vegetables, new fruits and new flowers suitable to the various soils and the various seasons.

(4) To discover new markets for the sale of Indian agricultural products.

(5) To establish and foster industries for the production of prepared articles of food adapted for consumption in India and for export abroad.

(6) To discover methods for the preservation of agricultural products including grass, in a state to admit of their being available for consumption at all times of the year and particularly during periods of drought.

(7) To devise, propose and effect the further extension of irrigation, and the utilization of water now running waste to the sea.

(8) To extend the growth of fodder at all times of the year.

(9) To investigate the possibility of preserving the fodder available in years of plenty for use in years of scarcity.

(10) To institute, establish and assign scholarships for enabling students to proceed abroad for agricultural education.

(11) To institute and promote exhibitions and fairs, and to award prizes for high class productions.

(12) To propose such amendments in the Land Revenue System as will remove or mitigate the disabilities from which the cultivator suffers under the existing system, while duly safeguarding the fiscal interests of the Government.

(13) To consider the feasibility of some indirect method of taxing the produce of land and thus mitigating the high pressure which the Land Revenue at present entails on the people.

(14) To consider the feasibility of some scheme for the redemption of the Land Revenue on the *Fee Simple System.*

(15) To devise means of extending and improving the use of manures on land and discovering new manures.

(16) To improve the breed of cattle and milch-animals and to increase their number.

(17) To increase largely the areas of pasture lands, and to extend cultivators' rights for grazing purposes in forests.

(18) To suggest means of giving protection to zamindars by relaxation of the rules of Arms Act against the ravages of wild beasts.

(19) To devise means of converting weeds and other rank growths to useful purposes, particularly fodder.

(20) To formulate rules for the leasing of Crown lands and forest lands for agricultural purposes.

(21) To extend and improve fruit-culture in rural areas.

(22) To examine exhaustively the evils resulting from the excessive partition and fragmentation of land, and to suggest, if so advised, suitable legislation to remedy these evils.

(23) To suggest rules for the dissemination among cultivators of seeds of better kinds and more numerous varieties.

(24) To examine and report on the best system of raising water from wells by animal power and mechanical power co-ordinated on the co-operative system.

(25) To consider and suggest some standardized principles for regulating the charge for canal water rates in different parts of the country.

(26) To standardize the measurement of land, by adopting some fixed standard of area for the whole of India. At present, *bighas, pacca bighas, kacha bigas* with all their components are hopelessly confusing, varying as they do, even from district to district.

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TABLE 1

Showing the **nett area cropped** per head of population arranged in order of **agricultural prosperity**, for the year 1912-13.

N.-B.—*This table is worked out from pages ii and iii and Table II, column 6 of the Agricultural Statistics of India 1912-13, Volume II.*

Native States

Name of State	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Banganapalle (Madras) ...	39	110	2·82	·18
Faridkot (Punjab) ...	130	361	2·78	·12
Bhopal (C. India) ...	730	1,634	2·24	·98
Jind (Punjab) ...	272	592	2·18	·22
Barwani (C. India) ...	109	228	2·09	·28
Indore (C. India) ...	1,008	1,910	1·89	1·30
Patiala (Punjab) ...	1,408	2,646	1·88	·39
Nagod (C. India) ...	75	130	1·73	·55
Nabha (Punjab) ...	249	412	1·65	·24
Rajgarh (C. India) ...	127	202	1·59	2·61
Kotah (Rajputana) ...	639	999	1·56	1·64
Dujana (Punjab) ...	25	38	1·52	·64
Bharatpur (Rajputana) ...	559	760	1·36	·32
Pataudi (Punjab) ...	20	27	1·35	·15
Gwalior (C. India) ...	3,102	4,165	1·34	·94
Malerkotla (Punjab) ...	71	84	1·18	·13
Narsingarh (C. India) ...	110	130	1·18	·98
Bahawalpur (Punjab) ...	781	894	1·14	1·20
Tonk (Rajputana) ...	303	344	1·14	1·15
Kalsia (Punjab) ...	56	62	1·11	·16
Pudukkottai (Madras) ...	412	452	1·10	·11
Alwar (Rajputana) ...	792	865	1·09	·19
Mysore ...	5,806	6,319	1·09	·17
Kishengarh (Rajputana) ...	87	88	1·01	....
Simla Hill States (Punjab)...	276	254	·92	1·05
Jhalawar (Rajputana) ...	96	88	·92	1·70
Sandur (Madras) ..	14	12	·86	·14
Kapurthala (Punjab) ...	268	217	·81	·17
Bikaner (Rajputana) ...	701	554	·79	4·25
Sirmur (Punjab) ...	139	92	·66	·06
Travancore (Madras) ...	3,429	1,882	·55	·18
Kashmir ...	3,158	1,660	·53	·24
Cochin (Madras) ...	918	476	·52	·01
Marwar (Rajputana) ...	2,058	820	·40	·24
Jaipur (Rajputana) ...	2,637	831	·32	·20

TABLE II

Showing the **area irrigated** per head of population arranged in order of **immunity from famine**, for the year 1912-13.

N.B.—*This table is worked out from pages ii, and iii and Table II column 13 of the Agricultural Statistics of India 1912-13, Volume II.*

Native States

Name of State	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Bahawalpur (Punjab) ...	781	730	·93
Faridkot (Punjab) ...	130	114	·88
Kishengarh (Rajputana) ...	87	69	·79
Pataudi (Punjab) ...	20	14	·70
Patiala (Punjab) ...	1,408	795	·56
Nabha (Punjab) ...	249	119	·48
Jind (Punjab) ...	272	111	·41
Bharatpur (Rajputana) ...	559	212	·38*
Pudukkottai (Madras) ...	412	134	·33
Kapurthala (Punjab) ..	268	84	·31
Malerkotla (Punjab) ...	71	22	·31
Travancore (Madras) ...	3,429	826	·24
Kashmir ...	3,158	666	·21
Sirmur (Punjab) ...	139	24	·17
Mysore ...	5,806	963	·17
Alwar (Rajputana) ...	792	136	·17
Cochin (Madras) ...	918	159	·17
Jaipur (Rajputana) ...	2,637	292	·11
Kalsia (Punjab) ...	56	6	·11
Jhalawar (Rajputana) ...	96	10	·10
Rajgarh (C. India) ...	127	13	·10
Kotah (Rajputana) ...	639	65	·10
Tonk (Rajputana) ...	303	24	·08
Dujana (Punjab) ...	25	2	·08
Gwalior (C. India) ...	3,102	165	·05
Narsingarh (C. India) ...	110	6	·05
Banganapalle (Madras) ...	39	2	·05
Indore (C. India) ...	1,008	44	·04
Marwar (Rajputana) ...	2,058	74	·04
Barwani (C. India) ...	109	3	·03
Bhopal (C. India) ...	730	15	·02
Bikaner (Rajputana) ...	701	9	·01
Sandur (Madras) ...	14	·14	·01
Nagod (C. India) ...	75	·55	·007

* All States below this line are liable to suffer from drought.

TABLE III

Showing the **nett area cropped** per head of population arranged in order of **agricultural prosperity**, for the year 1912-13.

N.B.— *This table is worked out from page viii and Table II. column 6 of the Agricultural Statistics of India 1912-13, Volume I.*

Provincial **British Territory**

Name of Province	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Berar ...	3,059	6,939	2·27	·05
Bombay ...	15,134	25,180	1·66	·10
Central Provinces ...	10,865	17,684	1·63	1.24
Lower Burma ...	6,462	9,034	1·40	2·28
Punjab ...	19,54[illegible]	24,159	1·24	·89
Upper Burma ...	4,114	4,964	1·21	2·62
Sind ...	3,513	3,991	1·14	1·62
Pargana Manpur (C. India)	7	7	1·00	1·00
North-West Frontier ...	2,255	2,140	·95	1·21
Madras ...	38,209	34,606	·91	·26
Assam ...	6,714	5,825	·87	2·24
Coorg ...	175	140	·80	·12
Bihar and Orissa ...	34,490	27,122	·79	·23
United Provinces ...	47,190	36,063	·76	·22
Ajmer-Merwara ...	501	356	·71	·25
Bengal ...	44,588	25,955	·58	·12

TABLE IV

Showing the **area irrigated** per head of population arranged in order of **immunity from famine,** for the year 1912-13.

N.B. — *This table is worked out from page viii and Table II, column 13 of the Agricultural Statistics of India 1912-13, Volume I.*

Provincial ***British Territory***

Name of Province	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Sind ...	3,513	3,274	·93
Punjab ...	19,548	11,302	·58 *
North-West Frontier ...	2,255	874	·39
Madras ...	38,209	9,898	·26
Ajmer-Merwara ...	501	123	·25
Upper Burma ...	4,114	968	·24
United Provinces ...	47,190	9,646	·20
Bihar and Orissa ...	34,490	4,805	·14
Central Provinces ...	10,865	906	·08
Bombay ..	15,134	1,004	·07
Bengal ...	44,588	2,224	·05
Assam ...	6,714	356	·05
Pargana Manpur (C. India) ...	7	·21	·03
Lower Burma ...	6,462	124	·02
Coorg ...	175	4	·02
Berar ...	3,059	32	·01

* All Provinces below this line are liable to suffer from drought.

TABLE V

Showing the **nett area cropped** per head of population arranged in order of **agricultural prosperity,** for the year 1912-13.

N. B.—*This table is worked out from Table II, column 6 and Table V, column 6 of the Agricultural Statistics of India 1912-13. Volume I.*

By Districts — **British Territory**

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Bengal				
Jalpaiguri ...	903	1,066	1·18	·20
Chittagong Hill Tracts ...	154	139	·90	2·44
Dinajpur ...	1,688	1,456	·87	·10
Rangpur ...	2,385	1,989	·83	·02
Pabna ...	1,429	1,148	·80	·04
Malda ...	1,004	789	·78	·23
Noakhali ...	1,303	1,001	·77	·0008
Midnapur ...	2,821	1,986	·70	·13
Backerganj ...	2,429	1,664	·69	·10
Birbhum ...	935	636	·68	·36
Darjeeling ...	266	174	·65	·17
Khulna ...	1,367	874	·64	·11
Jessore ...	1,758	1,117	·64	·01
Rajshahi ...	1,481	915	·62	·06
Maimensingh ...	4,526	2,451	·54	·06
Bardwan ...	1,538	810	·53	·14
Bogra ...	984	475	·48	·09
Bankura ...	1,139	537	·47	·70
Nadia ...	1,618	753	·47	·18
Murshidabad ...	1,372	612	·45	·19
Tippera ...	2,430	1,104	·45	·06
Dacca ...	2,960	1,258	·43	·02
Chittagong ...	1,508	651	·43	·03
24-Parganas ...	2,434	996	·41	·14
Faridpur ...	2,122	804	·38	·17
Hooghly and Howrah ...	2,034	560	·28	·03

TABLE V—*contd.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Madras				
Bellary ...	947	2,441	2·58	·20
Anantapur ...	788	1,959	2·49	·80
Karnul ...	872	2,068	2·37	·43
Guntur ...	1,491	2,133	1·43	·11
Nellore ...	1,273	1,427	1·12	·52
Trichinopoly ...	1,445	1,619	1·12	·18
Kistna ...	1,744	1,839	1·05	·21
Coimbatore ...	2,200	2,034	·92	·08
Ganjam ...	2,011	1,750	·87	·35
Cuddapah ...	1,291	1,096	·85	·37
Vizagapatam ...	2,933	2,237	·76	·74
Godávari ...	1,446	1,000	·69	·17
Salem ...	2,205	1,527	·69	·18
Tinnevelly ...	2,060	1.373	·67	·03
Nilgiris ...	113	69	·61	·61
South Arcot ...	2,350	1,401	·60	·07
Tanjore ...	2,245	1,340	·60	·08
Chingleput ...	1,312	750	·57	·09
North Arcot ...	2,208	1,164	·53	·10
Madura ...	2,831	1,462	·52	·07
Malabar ...	2,796	1,317	·47	·35
South Canara ...	1,135	522	·46	·31
Anjengo ...	5	·34	·07	·002
Bombay				
Bijápur ...	863	2.910	3·37	·06
Sholapur ...	768	1,947	2·54	·02
Ahmadnagar ...	945	2,318	2·45	·05
Khandesh ...	1,616	3,783	2·34	·28
Násik ...	905	2,015	2·23	·10
Dharwar ...	1,026	2,177	2·12	·05
Broach ...	307	568	1 85	·09
Belgaum ...	944	1,742	1·85	·08
Poona ...	1,072	1,801	1·68	·02

TABLE V—*contd.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Bombay—concluded				
Satara ...	1,081	1,621	1·50	·03
Ahmadabad ...	828	1,163	1·40	·20
Panch Mahâls ...	323	369	1·14	·28
Kaira ...	692	669	·97	·18
Surat ...	654	478	·73	·05
Kolâba ...	594	376	·63	·04
Tanna ...	882	452	·51	·04
Kánara ...	431	220	·51	·10
Ratnágiri ...	1,204	569	·47	·11
Sind				
Thar and Párkar ...	457	1,003	2·19	2·35
Upper Sind Frontier ...	263	362	1·38	1·08
Larkana ...	661	739	1·12	1·43
Karáchi ...	522	399	·76	2·33
Sukkur ..	574	376	·66	1·50
Hyderabad ...	1,037	603	·58	·87
United Provinces of Agra and Oudh				
Hamírpur ...	459	725	1·58	·83
Bánda ...	631	870	1·38	·79
Jalaun ...	400	549	1·37	·38
Jhánsi ...	681	763	1·12	1·19
Muttra ...	656	677	1·03	·20
Budaun ...	1,025	994	·97	·14
Kheri ...	905	875	·97	·45
Moradabad ...	1,192	1,117	·94	·15
Hardoi ...	1,093	1,021	·93	·22
Bahraich ...	1,051	974	·93	·27
Pilibít ...	470	435	·93	·48
Sitapur ...	1,175	1,026	·87	·17
Bijnor ...	780	675	·87	·24
Naini Tal ...	311	267	·86	·51

TABLE V—*contd.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
United Provinces of Agra and Oudh—concluded.				
Shahjahánpur ...	946	801	·85	·17
Muzaffarnagar ...	877	738	·84	·17
Etah ...	864	730	·84	·27
Gonda ...	1,403	1,158	·83	·22
Fatehpur ...	677	556	·82	·28
Saháranpur ...	1,045	856	·82	·12
Bulandshahr ...	1,138	903	·79	·15
Aligarh ...	1,201	929	·77	·08
Agra ...	1,061	801	·75	·13
Farukhabad ...	900	664	·74	·23
Meerut ...	1,540	1,129	·73	·11
Bareli ...	1,090	791	·73	·08
Mainpuri ...	829	598	·72	·14
Cawnpore ...	1,142	826	·72	·21
Ghazipur ...	840	607	·72	·16
Gorakhpur ...	2,939	2,124	·72	·11
Etáwah ...	760	537	·71	·32
Allahabad ...	1,467	1,026	·70	·23
Basti ...	1,830	1,272	·70	·15
Unao ...	977	652	·67	·23
Almora ...	466	295	·63	·08
Barabanki ...	1,179	737	·63	·17
Ballia ...	845	523	·62	·12
Mirzapur ...	1,071	658	·61	·47
Rae Bareli ...	1,017	614	·60	·25
Azamgarh ...	1,492	873	·59	·14
Sultanpur ...	1,084	635	·59	·17
Dehra Dún ...	178	102	·57	·40
Fyzabad ...	1,205	692	·57	·17
Partábgarh ...	913	520	·57	·16
Jaunpur ...	1,156	642	·55	·13
Garhwál ...	480	260	·54	·12
Benares ...	897	472	·53	·09
Lucknow ...	793	375	·47	·14

TABLE V—*contd.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Bihar and Orissa				
Ranchi ...	1,388	2,314	1·67	·59
Angul ...	199	244	1·23	·27
Sambalpur ...	744	913	1·23	·93
Singhbhum ...	694	709	1·02	·87
Hazaribagh ...	1,289	1,292	1·00	·94
Manbhum ...	1,548	1,494	·97	·09
Shahabad ...	1,866	1,784	·96	·08
Purnea ...	1,990	1,888	·94	·37
Santhal Parganas ...	1,883	1,655	·87	·32
Balasore ...	1,056	898	·85	·05
Gaya ...	2,159	1,736	·80	·07
Bhagalpur ...	2,139	1,638	·77	·19
Palamau ...	687	510	·74	1·00
Puri ...	1,023	751	·73	·17
Monghyr ...	2,133	1,470	·69	·21
Champaran ...	1,908	1,289	·68	·17
Patna ...	1,610	1,059	·66	·03
Cuttack ...	2,109	1,241	·59	·08
Saran ...	2,290	1,307	·57	·05
Darbhanga ...	2,930	1,502	·51	·07
Muzaffarpur ...	2,846	1,430	·50	·04
Punjab.				
Hissar ...	805	2,266	2·81	·65
Ferozpur ...	960	2,041	2·13	·23
Attock ...	519	835	1·61	·46
Mianwali ...	341	540	1·58	6·35
Shahpur ...	687	1,048	1·53	1·53
Rohtak ...	715	1,072	1·50	·26
Lyallpur ...	890	1,323	1·49	·53
Gurgaon ...	729	997	1·37	·21
Ludhiana ...	517	706	1·37	·17
Dera Ghazi Khan ...	500	670	1·34	2·86
Karnal ...	800	1,007	1·26	·77
Gujranwala ...	923	1,157	1·25	·94
Jhelum ...	512	619	1·21	·25
Jhang ...	516	611	1·18	2·18
Muzaffargarh ...	569	651	1·14	4·18
Montgomery ...	501	553	1·10	3·14
Multan ...	815	881	1·08	2·81

TABLE V—*contd.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Punjab—*Cnonc'd.*				
Ambala ...	690	719	1 04	·18
Gujrat ...	746	747	1·00	·38
Lahore ...	1,039	1,005	·97	·34
Rawalpindi ...	548	529	·97	15
Gurdaspur ...	937	784	·84	·13
Sialkot ...	980	820	·82	·21
Jalandhar ...	802	655	·82	·11
Amritsar ...	881	723	·82	·13
Hoshiarpur ...	919	678	·74	·27
Kangra ...	770	512	·67	·35
Simla ...	39	10	·26	·56
Upper Burma.				
Sagaing ...	312	490	1·57	·77
Shwebo ...	356	556	1·56	2·41
Lower Chindwin ...	316	488	1·54	1·23
Myingyan ...	442	680	1·54	·52
Meiktila ...	280	400	1·43	1·09
Magwe ...	317	410	1·29	·58
Kyaukse ...	141	180	1·28	·53
Pakokku ...	410	497	1·21	·63
Yamethin ...	307	354	1·15	2·94
Minbu ...	264	255	·97	·56
Katha ...	198	184	·93	3·74
Bhamo ...	108	87	·81	10·38
Pakokku Hill Tracts ...	17	10	·59	82·24
Myitkyina ...	86	48	·56	20·06
Upper Chindwin ...	171	95	·56	11·61
Mandalay ...	341	182	·53	·03
Ruby Mines ...	47	6	·13	3·55
Lower Burma				
Pyapon ...	256	625	2·44	·53
Hanthawaddy ...	340	811	2·39	·06
Pegu ...	364	795	2·18	·24
Insein ...	265	509	1·92	·66

TABLE V—*contd.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Lower Burma—*Concld.*				
Myaungmya ...	335	629	1·88	1·52
Thaton ...	417	703	1·69	4·24
Bassein ...	441	686	1·56	1·70
Ma-ubin ...	305	425	1·39	1·06
Amherst ...	368	482	1·31	3·93
Akyabs ...	530	690	1·30	2·89
Toungoo ...	351	423	1·21	·44
Mergui ..	111	128	1·15	21·56
Tharawadi ...	434	493	1·14	1·28
Kyaukpyu ...	185	200	1·08	·65
Henzada ...	532	566	1·06	·24
Tavoy ...	135	140	1·04	6·87
Prome ..	379	361	·95	·61
Thayetmyo ...	248	234	·94	2·17
Sandoway ..	103	83	·81	·38
Northern Arakan ...	22	12	·55	130·95
Salween ...	47	26	·55	·43
Rangoon Town ...	293	7	·03	·0007
Central Provinces				
Nimar ...	391	880	2·25	1·36
Wardha ...	460	1,014	2·20	·42
Hoshangabad ...	457	926	2·03	1·39
Seoni ...	395	789	2·00	1·38
Chhindwara ...	517	985	1·91	1·93
Drug ...	776	1,452	1·87	·84
Betul ...	390	704	1·81	1·65
Narsinghpur ...	326	587	1·80	1·18
Saugor ...	541	924	1·71	1·69
Mandla ...	405	671	1·66	1·97
Nagpur ...	815	1,355	1·66	·57
Damoh ...	333	538	1·62	1·33
Raipur ...	1,325	2,031	1·53	·97
Bilaspur ...	1,146	1,636	1·43	1·27
Jubbulpore ...	746	1,032	1·38	·83
Chanda ...	678	827	1·22	2·13
Bhandara ...	774	903	1·17	1·20
Balaghat ...	390	430	1·10	1·44

TABLE V—*concld.*

Name of District	Population in thousands	Total nett area cropped in thousands of acres	Nett area cropped per head in acres	Culturable waste per head in acres
Berar				
Akola	...	791	1,935	2·45	·01
Yeotmal	...	723	1,745	2·41	·04
Buldana	...	669	1,580	2·36	·006
Amraoti	...	876	1,678	1·92	·13
Assam				
Lushai Hills	...	91	97	1·07	28·04
Sylhet	...	2,473	2,586	1·05	·13
Nowgong	...	304	293	·96	6·31
Darrang	...	377	338	·90	3·02
Kamrup	...	668	587	·88	·81
Sibsagar	...	690	590	·86	2·29
Naga Hills	...	150	128	·85	1·57
Goalpara	...	601	429	·71	2·28
Lakhimpur	...	469	319	·68	3·85
Cachar	...	497	320	·64	1 82
Garo Hills	...	159	91	·57	9·98
Khasi and Jaintia Hills	...	235	49	·21	2·74
North-West Frontier Province				
Bannu	...	250	415	1·66	·81
Dera Ismail Khan	...	256	422	1·65	4·20
Kohat	...	223	259	1·16	·74
Peshawar	...	865	605	·70	·38
Hazara	...	575	388	·67	1·67
Kurrum	...	61	37	·61	·03
Tochi	...	25	13	·52	·08
Ajmer-Merwara				
Ajmer	...	380	283	·74	·29
Merwara	...	121	73	·60	·12

TABLE VI

Showing the area irrigated per head of population arranged in order of immunity from famine, for the year 1912-13.

N.B. This table is worked out from Table II, column 13, and Table V, column 6 of Agricultural Statistics of India 1912-13, Volume I.

By Districts — **British Territory**

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Bengal			
Jalpaiguri ...	903	371	·41
Bardwan ...	1,538	443	·29
Birbhum ...	935	214	·23
Malda ...	1,004	116	·12
Darjeeling ...	266	29	·11
Murshidabad ...	1,372	144	·10
Maimensingh ...	4,526	450	·10
Midnapur ...	2,821	215	·08
Bankura ...	1,139	84	·07
Hooghly and Howrah ...	2,034	106	·05
Rangpur ...	2,385	63	·03
Nadia ...	1,618	39	·02
Rajshahi ...	1,481	12	·008
24-Parganas ...	2,434	1	·0004
Tippera ...	2,430	·5	·0002
Madras			
Kistna	1,744	969	·56
Tanjore	2,245	1,000	·45
Vizagapatam	2,933	1,278	·44
Godáwari	1,446	608	·42
Nellore	1,273	504	·40
Chingleput ...	1,312	526	·40
Ganjam	2,011	787	·39
Anantapur	788	186	·24
Trichinopoly	1,445	330	·23

[c] All districts below this line are liable to suffer from drought.

TABLE VI—*contd.*

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Madras—*cont'd.*			
Guntur	1,491	335	·22
South Arcot	2,350	489	·21
North Arcot	2,208	436	·20
Coimbatore	2,200	405	·18
Tinnevelly	2,060	350	·17
Cuddapah	1,291	209	·16
Madura	2,831	435	·15
Karnul	872	82	·09
Salem	2,205	189	·09
Bellary	947	59	·06
Bombay *			
Ahmadnagar	945	133	·14
Sholapur	768	110	·14
Násik	905	101	·11
Poona	1,072	118	·11
Satara	1,081	107	·10
Dharwar	1,026	100	·10
Ahmadabad	828	81	·10
Kaira	692	51	·07
Khandesh	1,616	73	·05
Belgaum	944	50	·05
Kánara	431	15	·03
Panch Mahals ...	323	5	·02
Surat	654	12	·02
Bijápur	863	17	·02
Ratnágiri	1,204	23	·02
Tanna	882	5	·006
Broach	307	·85	·003
Kolába	594	2	·003
Sind			
Upper Sind Frontier ...	263	362	1·38
Larkana	661	733	1·11
Thar and Parkar ...	457	437	·96
Karáchi	522	322	·62
Hyderabad	1,037	601	·58
Sukkur	574	311	·54

* All districts in this Province are liable to suffer from drought.

TABLE VI—*contd.*

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
United Provinces of Agra and Oudh *			
Aligarh	1,201	446	·37
Mainpuri	829	302	·36
Bulandshahr	1,138	398	·35
Muttra	656	228	·35
Etah	864	296	·34
Azamgarh	1,492	492	·33
Muzaffarnagar	877	288	·33
Jaunpur	1,156	365	·32
Fyzabad	1,205	365	·30
Meerut	1,540	448	·29
Sultanpur	1,084	314	·29
Partábgarh	913	264	·29
Etáwah	760	208	·27
Basti	1,830	496	·27
Naini Tal	311	84	·27
Rae Bareli	1,017	278	·27
Ghazipur	840	216	·26
Fatehpur	677	169	·25
Gorakhpur	2,939	709	·24
Farukhabad	900	203	·23
Cawnpore	1,142	265	·23
Ballia	845	188	·22
Unao	977	203	·21
Agra	1,061	214	·20
Benares	897	171	·19
Barabanki	1,179	202	·17
Saháranpur	1,045	163	·16
Budaun	1,025	165	·16
Gonda	1,403	227	·16
Dehra Dun	178	28	·16
Allahabad	1,467	211	·14
Hardoi	1,093	147	·13
Bareli	1,090	137	·13
Jalaun	400	53	·13
Lucknow	793	89	·11
Shahjahánpur	946	100	·11
Jhansi	681	67	·10
Mirzapur	1,071	92	·09
Pilibit	470	37	·08

* All districts in this province are liable to suffer from drought.

TABLE VI—*contd.*

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
United Provinces of Agra and Oudh – *Concld.*			
Banda	631	39	·06
Moradabad	1,192	74	·06
Almora	466	24	·05
Bijnor	780	36	·05
Sitapur	1,175	56	·05
Hamirpur	459	21	·05
Kheri	905	28	·03
Bahraich	1,051	28	·03
Garhwal	480	9	·02
Bihar and Orissa			
Shahabad	1,866	842	·45
Patna	1,610	686	·43
Gaya	2.159	613	·28
Puri	1,023	214	·21
Sáran	2,290	455	·20
Monghyr	2 133	356	·17
Sambalpur	744	124	·17
Santhal Parganas	1,883	312	·17
Bhagalpur	2,139	293	·14
Cuttack	2,109	265	·13
Balasore	1,056	126	·12
Singhbhum	694	78	·11
Palamau	687	61	·09
Champaran	1,908	140	·07
Angul	199	14	·07
Manbhum	1,548	100	·06
Muzaffarpur	2,846	46	·02
Darbhanga	2,930	32	·01
Purnea	1,990	27	·01
Hazaribagh	1,289	17	·01
Ranchi	1,388	3	·002

* All districts below this line are liable to suffer from drought.

TABLE VI—*contd.*

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Punjab			
Shahpur	687	834	1·21
Jhang	516	561	1·09
Multan	815	847	1·04
Gujranwala	923	894	·97
Muzaffargarh	569	547	·96
Montgomery ...	501	471	·94
Ferozpur	960	894	·93
Lahore	1,039	927	·89
Amritsar	881	600	·68
Dera Ghazi Khan ...	500	330	·66
Sialkot	980	492	·50
Jalandhar	802	369	·46
Ludhiana ...	517	215	·42
Karnal	800	328	·41
Hissar	805	303	·38
Rohtak	715	224	·31
Gujrat	746	222	·30
Gurdaspur	937	256	·27
Kangra	770	182	·24
Gurgaon	729	114	·16
Mianwali	341	53	·16
Attock	519	61	·12
Hoshiarpur	919	77	·08
Jhelum	512	30	·06
Ambala	690	31	·04
Rawalpindi	548	10	·02
Upper Burma			
Kyaukse	141	139	·99
Shwebo	356	165	·46
Meiktila	280	127	·45
Minbu	264	107	·41
Yamethin	307	124	·40
Katha	198	66	·33
Mandalay	341	91	·27

* All districts below this line are liable to suffer from drought.

TABLE VI—*contd.*

Upper Burma—concld.

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Magwe	317	45	·14
Myitkyina	86	10	·12
Upper Chindwin	171	19	·11
Bhamo	108	7	·06
Lower Chindwin	316	18	·06
Sagaing	312	13	·04
Pakokku	410	17	·04
Myingyan	442	19	·04
Ruby Mines	47	1	·02

*Lower Burma**

Prome	379	55	·15
Thayetmyo	248	14	·06
Toungoo	351	19	·05
Thaton	417	16	·04
Amherst	368	6	·02
Henzada	532	6	·01
Bassein	441	3	·007
Tavoy	135	·96	·007
Salween	47	·29	·006
Pegu	364	2	·005
Rangoon Town	293	·28	·001
Insein	265	·21	·0008

*Central Provinces**

Bhandara	774	261	·34
Balaghat	390	98	·25
Chanda	678	155	·23
Bilaspur	1,146	162	·14
Raipur	1,325	98	·07
Seoni	395	27	·07
Drug	776	37	·05
Nagpur	815	22	·03
Betul	390	10	·03
Nimar	391	6	·02
Chhindwara	517	7	·01

* All districts in this Province are liable to suffer from drought.

TABLE VI—*concld.*

Central Provinces—*concld*

Name of District	Population in thousands	Total area irrigated in thousands of acres	Area irrigated per head in acres
Saugor	541	5	·009
Damoh	333	3	·009
Jubbulpore	746	7	·009
Wardha	460	3	·007
Narsinghpur ...	326	2	·006
Hoshangabad	457	2	·004
Mandla	405	·99	·002
Berar*			
Buldana	669	16	·02
Akola	791	6	·008
Amraoti	876	7	·008
Yeotmal	723	2	·003
Assam*			
Kamrup	668	210	·31
Darrang	377	111	·29
Garo Hills	159	16	·10
Khasi and Jaintia Hills ...	235	17	·07
Sibsagar	690	2	·003
Lushai Hills	91	·3	·003
North-West Frontier			
Kurram	61	49	·80
Tochi	25	19	·76
Bannu	250	145	·58
Peshawar	865	470	·54
			——†
Dera Ismail Khan	256	94	·37
Kohat	223	36	·16
Hazara	575	61	·11
Ajmer-Merwara *			
Ajmer	380	103	·27
Merwara	121	20	·17

° All districts in this Province are liable to suffer from drought.

† All districts below this line are liable to suffer from drought.

TABLE VII

Showing the **average yield** (lb. per acre) of principal crops, revised with reference to crop experiments made up to the year 1913-14.

N. B.--This table is worked out from table No. 13 of the Estimates of Area and Yield of Principal Crops in India 1913-14.

Native States

I

Wheat		Cotton (cleaned)	
Name of State	Average yield (lb. per acre)	Name of State	Average yield (lb. per acre)
Mysore ...	747	Rajputana States ...	112
Rajputana States ...	439	Central India States	77
Central India States	411	Mysore ...	69
Hyderabad ...	137	Hyderabad ...	44

II

Name of State	Average yield (lb. per acre) of Linseed	Average yield (lb. per acre) of Rape and mustard	Average yield (lb. per acre) of Til or jinjili (sesamum)	Average yield (lb per acre) of Jute
Hyderabad ..	90	40	92	...
Cooch Bihar ...	...	...	...	1,227

TABLE VIII

Showing the **average yield** (lb. per acre) of principal crops in **irrigated area,** revised with reference to crop experiments made up to the year 1911—12.

N. B.—This table is worked out from Appendix A of the Agricultural Statistics of India 1912—13, Volume I.

Provincial ***British Territory and Mysore***

Rice (husked)		Wheat		Barley		Jawar	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)
North-West Frontier ...	1,205	Sind ...	1 340	United Provinces ...	1,300	Bombay ...	1,550
Madras ...	1,193	Bombay ...	1,250	Ajmer-Merwara ...	1,248	Sind ...	1,396
United Provinces ...	1,100	United Provinces ...	1,250	North West Frontier ...	1,189	Madras ...	1,379
Upper Burma	1,094	Punjab ...	898	Sind ...	1,076	Punjab ...	488
Mysore ...	841	North-West Frontier ...	874	Punjab ...	1,018		
Punjab ...	782						

11

Peas		Gram		Til or jinjili (sesamum)		Sugarcane (gur)	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre
United Provinces ...	1,150	Bombay ...	1,200	Sind ...	394	Bombay ...	6 950
		United Provinces	950	Madras ...	373	Madras ...	6.701
		North West Frontier...	730			Sind ...	4,233
		Punjab ...	625			Mysore ...	3,138
		Sind ...	476			United Provinces	2,600
						North West Frontier...	2 430
						Punjab ...	1,748

21

TABLE VIII—*concld.*

III

Bajra		Ragi		Maize	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre
Madras ...	1,020	Madras ...	1,419	North-West Frontier ...	1,356
Sind ...	971	Bombay ...	1,400	Punjab ...	1,112
North-West Frontier ...	704			Ajmer-Merwara	946
Punjab ...	521				

IV

Rape and mustard		Cotton (cleaned)	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre
Sind	602	Sind	380
North-West Frontier ...	544	United Provinces... ...	220
Punjab	498	Ajmer-Merwara	180
		North We t Frontier ...	173
		Punjab	126
		Madras	87

TABLE IX

Showing the **average yield** (lb. per acre) of principal crops in **unirrigated area**, revised with reference to crop experiments made up to the year 1911—12.

N. B.—This table is worked out from Appendix A of Agricultural Statistics of India 1912—13, Volume I.

Provincial ***British Trritory and Mysore***

I

Rice (husked)		Wheat		Barley		Jawar	
Name of Province	Average yield (lb per acre)	Name of Province	Average yield (lb. per acre	Name of Province	Average yield (lb per acre)	Name of Province	Average yield (lb. per acre)
Coorg ...	1,483	United Provinces	850	United Provinces	900	Madras ...	721
Bombay ...	1,230	North-West Frontier ..	559	North-West Frontier...	736	Bombay ...	670
Lower Burma	1.140	Punjab ...	555	Punjab ...	592	Central Prov. & Berar ...	664
Assam (Winter rice)	1,008	Bombay ...	510	Ajmer-Merwara...	550	United Provinces	650
Upper Burma ...	891	Upper Burma ...	322			North West Frontier ...	436
Madras ...	887					Punjab ...	381
United Provinces	850					Upper Burma ...	264
Assam (Autumn rice)	672					Ajmer-Merwara...	137
Punjab ...	474						

II

Bajra		Ragi		Maize		Peas	
Name of Province	Average yield (lb per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb per acre)	Name of Province	Average yield (lb. per acre)
Madras ...	659	Madras ...	1.075	United Provinces	1,100	United Provinces	600
United Provinces	550	Bombay ...	1,060	Ajmer-Merwara...	835	Upper Burma (Dolichos lablab)	478
North-West Frontier...	489	Mysore ...	581	Punjab	766		
Bombay ...	400			North-West Frontier...	735		
Punjab ...	365						

TABLE IX.—*concld.*

III.

Arhar		Gram		Linseed		Til or jinjili (sesamum)	
Name of Province	Average yield (lb. per acre)	Name of Province	Avreage yield (lb per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)
United Provinces	750	United Provinces	800	United Provinces	500	Assam ...	448
		Punjab ...	534	Assam ...	448	Bombay ...	400
		Central Provinces and Berar ..	532	Bombay ...	360	United Provinces	280
		North-West Frontier...	449	Central Provinces and Berar ...	226	Madras ...	238
		Upper Burma ...	414			Upper Burma ...	229
		Bombay ...	410			Central Provinces and Berar ...	224
		Mysore ...	257			Mysore ...	199

IV

Rape and mustard		Sugarcane *(gur)*		Cotton (cleaned)		Jute	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province.	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)
Bombay ...	625	Assam ...	1 904	Assam ...	154	Assam ...	1,200
United Provinces	600	Punjab ...	1,467	North-West Frontier...	142		
Assam ...	504			United Provinces	130		
North-West Frontier	411			Ajmer-Merwara	127		
Punjab ...	33			Upper Burma ...	122		
				Bombay ...	100		
				Punjab ...	95		
				Central Provinces and Berar ...	86		
				Mysore ...	79		
				Madras ...	55		

TABLE X

Showing the **average yield** (lb. per acre) of principal crops in both **irrigated and unirrigated area**, revised with reference to crop experiments made up to the year 1911—12.

N.B.—This table is worked out from Appendix A of Agricultural Statistics of India 1912—13, Volume I.

Provincial ***British Territory***

Rice (husked)		Wheat		Barley		Ragi		Maize		Peas		Arhar		Gram	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)
Bihar and Orissa (Winter rice)	1,234	Bihar ...	984	Bihar and Orissa...	881	Bihar and Orissa...	820	Bihar and Orissa...	820	Upper Burma (Phaseolus lunatus ...	855	Bihar and Orissa...	881	Bengal ...	881
Bengal (Spring or summer rice)	1,104	Bengal ...	861											Bihar and Orissa...	881
Bengal (Winter rice)	983	Central Provinces and Berar ...	600												
Bengal (Autumn rice)	807	Chota Nagpur ...	451												
Bihar and Orissa (Spring or Summer rice) ...	800														
Bihar and Orissa (Autumn rice)	800														
Central Provinces and Berar ...	624														

TABLE X—*concluded*

Provincial **British Territory**

Linseed		Rape and Mustard		Sugarcane (*Gur*)		Cotton (cleaned)		Jute	
Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)	Name of Province	Average yield (lb. per acre)
Bengal ...	492	Bengal	492	Bengal ...	2 905	Bengal ...	155	Bengal ...	1,271
Bihar and Orissa ...	492	Bihar and Orissa ...	492	Central Provinces and Berar ...	2.569	Bihar and Orissa ...	155	Bihar and Orissa ...	1,200
				Bihar and Orissa ...	2,460				

TABLE XI

Showing the **average yield** (lb. per acre) of principal crops in **irrigated area**, revised with reference to crop experiments made up to the year 1911-12.

N. B.—This table is worked out from Appendix A of Agricultural Statistics of India 1912-13, Volume I.

By Districts **British Territory**

Bengal

Winter rice (transplanted)		Winter rice (broadcast)		Autumn rice (transplanted)		Autumn rice (broadcast)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
24—Parganas ...	1,773	Bardwan ...	1,517	Bardwan ...	1,183	Khulna	1,080
Birbhum	1,385	Bankura ...	1,286	Bankura ...	1,061	Birbhum	218
Hooghly	1,278	Midnapur ...	1,072	Hooghly ...	947		
Bankura	1,258						
Midnapur	1,135						
Murshidabad... ...	1,116						
Darjeeling	1,111						
Bardwan	1,026						

TABLE XI—*contd.*

Bengal (concluded)

Summer rice (transplanted)		Wheat		Potato		Sugarcane (*Gur*)		Jute	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Midnapur ...	945	Birbhum ...	1,097	Hooghly ...	15,428	Howrah ...	5,011	Darjeeling ...	928
				Bardwan ...	14,783	24-Parganas ...	3,878	Midnapur ...	895
						Hooghly ...	3,573		
						Bardwan ...	3,372		
						Birbhum ...	2,097		
						Bankura ...	1,677		

TABLE XI—*contd.*

Madras

Rice (husked)		Jawar		Bajra		Ragi	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Madura ...	1,552	North Arcot	1,688	Guntur ...	1,487	Ramnad	2,835
Tinnevelly	1,526	Tinnevelly	1,643	Nellore ...	1,217	Guntur ...	1,882
Salem ...	1,511	Nellore ...	1,533	North Arcot	1,183	Nellore ...	1,697
Trichinopoly	1,452	Anantapur	1,391	Coimbatore	1,026	Karnul ...	1,669
Coimbatore	1,438	Salem ...	1,341	Vizagapatam	995	Coimbatore	1,629
Cuddapah ...	1,437	Coimbatore	1,216	Chingleput	913	Cuddapah	1,625
North Arcot	1,368	Kistna ...	1,209	Tanjore ...	660	Tinnevelly	1,523
Guntur ...	1,339	Madura ...	1,011	Salem ...	629	South Arcot	1,516
South Arcot	1,301	Trichinopoly	853	Tinnevelly	585	North Arcot	1,429
Anantapur	1,286			Trichinopoly	559	Salem ...	1,414
Vizagapatam	1,269					Anantapur	1,365
Ramnad	1,232					Vizagapatam	1,262
Karnul ...	1,223					Kistna ...	1,214
Bellary ...	1,187					Trichinopoly	1,194
Kistna ...	1,090					Chingleput	1,176
Ganjam ...	1,087					Ganjam ...	1,169
Chingleput	1,078					Tanjore ...	1,092
Nellore ..	1,067					Bellary ...	1,042
Godavari ...	1,022					Madura ...	1,026
Malabar ...	970					Godavari ...	740
Tanjore ...	931						
South Canara	916						

TABLE XI—*contd.*

Madras—(concluded)

Til or Jinjili (Sesamum)		Sugarcane (*Gur*)		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
North Arcot ...	494	Coimbatore ...	8 638	Tinnevelly ...	97
Salem ...	482	Salem ...	8,435	Cuddapah ...	35
Vizagapatam ...	481	Cuddapah ...	7,402		
Madura ...	474	Vizagapatam ...	7,231		
Kistna ...	449	Bellary ...	7,185		
Tinnevelly ...	441	Godavari ...	7,139		
South Arcot ...	425	North Arcot ...	6,789		
Coimbatore ...	385	Anantapur ...	6,067		
Godavari ...	343	Ganjam ...	5,376		
Ganjam ...	305	Karnul ...	5,241		
Nellore ...	274	South Arcot ...	5,240		
Trichinopoly ...	270	Kistna ...	4,396		
Chingleput ...	266	Trichinopoly ...	3,436		
Tanjore ...	259				
Malabar ...	143				

Bombay

Wheat		Jawar		Ragi		Gram	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Ahmadnagar	1,360	Ahmadnagar (Rabi) ...	1,800	Nasik ...	1,400	West Khandesh	1,200
Satara ...	1,350	Poona (Rabi) ...	1,500	Ahmadangar	1,400	East Khandesh	1,200
Nasik ...	1,320	Sholapur (Rabi) ...	1,500			Nasik ...	1,200
Ahmadabad	1,300	Satara (Rabi) ...	1,500			Ahmadnagar	1,200
Kaira ...	1,300	Nasik (Rabi) ...	1,400			Poona ...	1,200
Panch Mahals ...	1,300					Sholapur ...	1,200
West Khandesh	1,280					Satara ...	1,200
East Khandesh	1,280						
Belgaum ...	1,200						
Poona ...	1,080						
Sholapur ...	1,080						
Bijapur ...	1,080						

TABLE XI—*contd.*

Bombay—(concld.)

Sugarcane (*Gur*)		Spelt		Groundnut	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Broach ...	7,000	West Khandesh	1,500	Surat ...	3,000
Surat ...	7,000	East Khandesh	1,500	West Khandesh	3,000
West Khandesh	7,000	Nasik ...	1,500	East Khandesh	3,000
East Khandesh...	7,000	Ahmadnagar ...	1,500	Nasik ...	3,000
Nasik ...	7,000	Poona ...	1,500	Ahmadnagar ...	3,000
Ahmadnagar ...	7,000	Sholapur ..	1,500	Poona ..	3,000
Poona ...	7,000	Satara ...	1,500	Sholapur ...	3,000
Sholapur ...	7,000	Belgaum ...	1,500	Satara ...	3,000
Satara ...	7,000	Bijapur ...	1,500	Belgaum ...	3,000
Belgaum ...	7,000	Dharwar ...	1,500	Bijapur ...	3 000
Bijapur ...	7,000			Dharwar ...	3,000
Dharwar ...	7,000				
Tanna ...	7,000				
Kanra ...	7,000				
Ahmadabad ...	6,000				
Kaira ...	6,000				
Panch Mahals ...	5,000				
Kolaba ...	4,000				
Ratnagiri ...	4,000				

TABLE XI--*contd.*

Sind

I

Wheat		Barley		Jawar		Bajra	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Karachi ...	1,777	Thar and Parkar	1,518	Sukkur ...	1,846	Larkana ...	1,360
Larkana ...	1,608	Karachi ...	1,279	Hyderabad	1,719	Hyderabad	1,280
Sukkur ...	1,451	Hyderabad	960	Larkana ...	1,360	Sukkur ...	1,109
Hyderabad	1,200	Upper Sind Frontier...	902	Karachi ...	1,222	Karachi ...	954
Thar and Parkar ...	1,094	Sukkur ...	720	Upper Sind Frontier...	832	Upper Sind Frontier...	640
Upper Sind Frontier ...	908					Thar and Parkar ...	480

II

Gram		Sesamum (til or jinjili)		Rape and Mustard		Sugarcane *(Gur)*	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Sukkur ...	600	Hyderabad	515	Upper Sind Frontier...	768	Karachi ...	4,320
Larkana ...	560	Karachi ...	480	Sukkur ...	711	Hyderabad	4,146
Upper Sind Frontier...	522	Sukkur ...	480	Hyderabad	640		
Hyderabad	373	Thar and Parkar ...	393	Larkana ...	640		
Karachi ...	325	Upper Sind Frontier...	373	Karachi ...	426		
		Larkana ...	120	Thar and Parkar ...	426		

III

Cotton (cleaned)

Name of District	Average yield (lb. per acre)
Thar and Parkar [Abassi (Egyptian)]	491
Thar and Parkar [Metaffifi (Egyptian)]	454
Larkana	320
Hyderabad	255

TABLE XI—*contd.*

United Provinces of Agra and Oudh

Rice (husked)			Wheat			Barley			Gram		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)
Almora	Naini Tal ...	1,600	Muzaffarnagar	Muzaffarnagar ...	1,300	Muzaffarnagar	Muzaffarnagar ...	1,500	Moradabad	Moradabad ...	1,000
	Almora ...			Meerut ...			Meerut ...			Saharanpur ...	
	Garhwal ...									Bijnor ...	
	Dehra Dun ...									Bareli ...	
Ballia	Ballia ...	1,200							Muzaffarnagar	Muzaffarnagar ...	1,000
	Ghazipur ...									Meerut ...	
	Azamgarh ...										
Sultanpur	Sultanpur ...	1,100	Bulandshahr	Bulandshahr ...	1,300	Bulandshahr	Bulandshahr ...	1,500			
	Barabanki ...			Aligarh ...			Aligarh ...				
	Partabgarh ...										
	Fyzabad ...										
Moradabad	Moradabad ...	1,050	Bahraich	Bahraich ...	1,300				Bulandshahr	Bulandshahr ...	1,000
	Saharanpur ...			Pilibit ...		Sultanpur	Sultanpur ...	1,500		Aligarh ...	
	Bijnor ...			Kheri ...			Barabanki ...				
	Bareli ...						Partabgarh ...				
							Fyzabad ...				
Bahraich	Bahraich ...	1,050	Almora	Naini Tal ...	1,250				Mainpuri	Mainpuri ...	1,000
	Pilibit ...			Almora ...						Etah ...	
	Kheri ...			Garhwal ...						Etawah ...	
				Dehra-Dun ...		Muttra	Muttra ...	1,400		Farukhabad ...	
							Agra ...				

TABLE XI—*contd.*

United Pirovnces of Agra and Oudh—contd.

Rice (husked)			Wheat			Barley			Gram		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)
Fatehpur	1,050		Moradabad	1,250		Unao	1,400		Muttra	1,000	
Fatehpur			Moradabad			Moradabad	1,300		Budaun	1,000	
Basti	1,050		Mainpuri	1,250		Mainpuri	1,300		Bahraich	1,000	
Muzaffarnagar	1,000		Budaun	1,250							
Unao			Unao	1,250		Sitapur	1,300		Unao	1,000	
Bulandshahr	1,000		Sultanpur	1,250		Bahraich	1,300		Sultanpur	1,000	

Rice (husked)			Wheat			Barley			Gram		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)
Fatehpur			Moradabad			Unao			Muttra		
Fatehpur	...		Moradabad	...		Unao	...		Muttra	...	
Fatehpur	...		Saharanpur	...		Lucknow	...		Agra	...	
Fatehpur	...	1,050	Saharanpur	...	1,250	Lucknow	...	1,400	Agra	...	1,000
Basti			Bijnor			Rae Bareli					
Basti	...		Bijnor	...		Rae Bareli	...				
Gonda	...		Bareli	...							
Gonda	...		Bareli	...		Moradabad			Budaun		
Gorakhpur	...	1,050	Mainpuri		1,250	Moradabad	...	1,300	Budaun	...	1,000
Gorakhpur	...		Mainpuri	...		Moradabad	...		Shahjahanpur	...	
Muzaffarnagar			Etah			Saharanpur					
Muzaffarnagar	...		Etah	...		Saharanpur	...				
Muzaffarnagar	...		Etawah	...		Bijnor					
Muzaffarnagar	...		Etawah	...		Bijnor	...				
Muzaffarnagar	...		Farukhabad	...		Bareli					
Muzaffarnagar	...	1,000	Farukhabad	...		Bareli	...				
Meerut			Budaun			Mainpuri			Bahraich		
Meerut	...		Budaun	...		Mainpuri	...		Bahraich	...	
			Shahjahanpur		1,250	Etah		1,300	Pilibit		1,000
			Shahjahanpur	...		Etah	...		Pilibit	...	
			Unao			Etawah			Kheri		
			Unao	...		Etawah	...		Kheri	...	
			Lucknow		1,250	Farukhabad					
			Lucknow	...		Farukhabad	...				
			Rae Bareli			Sitapur			Unao		
			Rae Bareli	...		Sitapur	...	1,300	Unao	...	
Bulandshahr			Sultanpur						Lucknow		1,000
Bulandshahr	...		Sultanpur	...		Hardoi	...		Lucknow	...	
Bulandshahr	...		Barabanki	...					Rae Bareli		
Bulandshahr	...	1,000	Barabanki	...	1,250				Rae Bareli	...	
Aligarh			Partabgarh			Bahraich					
Aligarh	...		Partabgarh	...		Bahraich	...		Sultanpur		
			Fyzabad			Pilibit		1,300	Sultanpur	...	
			Fyzabad	...		Pilibit	...		Barabanki		1,000
						Kheri			Barabanki	...	
						Kheri	...		Partabgarh		
									Partabgarh	...	
									Fyzabad		
									Fyzabad	...	

| | | |

TABLE XI—*contd.*

United Provinces of Agra and Oudh—*contd.*

Peas			Sugarcane (*Gur*)			Indigo (dye)		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yiled (lb. per acre)
Sultanpur	Sultanpur ...	1,200	Ballia	Ballia ...	3,200	Sultanpur	Sultanpur ...	20
	Barabanki ...			Ghazipur ...			Barabanki ...	
	Partabgarh ...			Azamgarh ...			Partabgarh ...	
	Fyzabad ...						Fyzabad ..	
Benares	Benares ..	1,200	Muzaffarnagar	Muzaffarnagar ...	2,800	Muzaffarnagar	Muzaffarnagar ...	19
	Jaunpur ...							
	Mirzapur ...			Meerut ...			Meerut ...	
Ballia	Ballia ...	1,200	Sitapur	Sitapur ...	2,700	Bulandshahr	Bulandahahr ...	19
	Ghazipur ...			Hardoi ...				
	Azamgarh ...						Aligarh ...	
Basti	Basti ...	1,200	Unao	Unao ...	2,600			
	Gonda ...			Lucknow ...				
	Gorakhpur ...			Rae-Bareli ...				
Unao	Unao ...	1,150	Sultanpur	Sultanpur ...	2,600	Benares	Benares ...	19
	Lucknow ...			Barabanki ...			Jaunpur ...	
	Rae-Bareli ...			Partabgarh ...			Mirzapur ...	
				Fyzabad ...		Ballia	Ballia ...	19
							Ghazipur ...	
							Azamgarh ...	

Bulandshahr	Bulandshahr ...	1,000	Benares	Benares ...	2,600	Basti	Basti ...	19
	Aligarh ...			Jaunpur ...			Gonda ...	
Sitapur	Sitapur ...	1,000		Mirzapur ...			Gorakhpur ...	
	Hardoi ...		Bulandshahr	Bulandshahr ...	2,500	Moradabad	Moradabad ...	18
Bahraich	Bahraich ...	850		Aligarh ...			Saharanpur ...	
	Pilibit ...		Basti	Basti ...	2,500		Bijnor ...	
	Kheri ...			Gonda ...			Bareli ...	
Muzaffarnagar	Muzaffarnagar ...	800		Gorakhpur ...		Budaun	Budaun ...	18
	Meerut ...		Moradabad	Moradabad ...	2,450		Shahjahanpur ...	
Mainpuri	Mainpuri ...	800		Saharanpur ...		Fatehpur	Fatehpur ...	17
	Etah ...			Bijnor ...			Cawnpore ...	
	Etawah ...			Bareli ...			Allahabad ...	
	Farukhabad ...		Budaun	Budaun ...	2,400	Mainpuri	Mainpuri ...	15
Fatehpur	Fatehpur ...	800		Shahjahanpur ...			Etah ...	
	Cawnpore ...		Mainpuri	Mainpuri ...	2,200		Etawah ...	
	Allahabad ...			Etah ...			Farukhabad ...	
				Etawah ...		Muttra	Muttra ...	15
				Farukhabad ...			Agra ...	

TABLE XI—*contd.*

United Provinces of Agra and Oudh—*concld.*

Peas			Sugarcane (*gur*)			Cotton (cleaned)		
	Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)
Moradabad	Moradabad ...	750	Fatehpur	Fatehpur ...	2,150	Mainpuri	Mainpuri ...	230
	Saharanpur ...			Cawnpore ...			Etah ...	
	Bijnor ...			Allahabad ..			Etawah ...	
	Bareli ...						Farukhabad ...	
Muttra	Muttra ...	650	Muttra	Muttra ...	2,000	Muttra	Muttra ...	230
	Agra ...			Agra ...			Agra ...	
Budaun	Budaun ...	650	Bahraich	Bahraich ...	2,000	Muzaffarnagar	Muzaffarnagar ...	200
	Shahjahanpur ...			Pilibit ...			Meerut ...	
				Kheri ...				
			Jhansi	Jhansi ...	1,500	Bulandshahr	Bulandshahr ...	200
				Jalaun ...			Aligarh ...	
			Banda	Banda ...	1,500			
				Hamirpur ...				

TABLE XI—*contd.*

Bihar and Orissa

Winter rice (transplanted)		Winter rice (broadcast)		Autumn rice (transplanted)		Autumn rice (broadcast)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Puri ...	1,611	Angul ...	1,169	Monghyr ...	694	Cuttack ...	1,036
Manbhum ...	1,278	Sambalpur	1,107			Sambalpur	564
Sambalpur...	1,221	Puri ...	1,066			Singhbhum	424
Ranchi ...	1,193	Gaya ...	1,049				
Angul ...	1,096	Cuttack	857				
Santhal Parganas...	1,036	Balasore ...	792				
Singhbhum	978	Santhal Parganas...	598				
Darbhanga	950	Shahabad...	573				
Palamau ...	938	Hazaribagh	489				
Bhagalpur...	927	Monghyr ...	450				
Gaya... ...	924	Singhbhum	424				
Muzaffarpur	922	Saran ...	414				
Cuttack ...	840	Patna ...	343				
Monghyr ...	754	Palamau ...	206				
Shahabad ...	744						
Patna ...	742						
Hazaribagh	669						
Saran ...	424						

Summer rice (transplanted)		Summer rice (broadcast)		Wheat		Barley	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Cuttack ...	707	Cuttack ...	720	Muzaffarpur	1,002	Saran ...	912
				Bhagalpur	984	Muzaffarpur	810
				Patna ...	970	Palamau ..	799
				Gaya ...	912	Shahabad ...	716
				Shahabad...	898	Patna ...	714
				Monghyr ...	894	Bhagalpur	654
				Palamau ...	682	Champaran	617
				Saran ...	679	Gaya ...	470
				Darbhanga	648	Darbhanga	453

TABLE XI—*contd.*

Bihar and Orissa—concld.

Maize		Ragi or marua		Gram		Arhar	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre
Bhagalpur...	868	Darbhanga	1,214	Bhagalpur...	961	Saran ...	1,331
Saran ...	831	Muzaffarpur	926	Shahabad...	784	Darbhanga	468
Palamau ...	627	Patna ...	520	Gaya ...	726	Patna ...	440
Patna ...	549	Gaya ...	499	Patna ...	557		
				Darbhanga	265		
				Palamau ...	231		

Peas		Masur		Rape and mustard		Linseed	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Patna ...	560	Patna ...	413	Darbhanga	900	Gaya ...	443
				Patna ...	426	Darbhanga	123
				Palamau ...	197	Patna ...	87

Sugarcane (*Gur*)		Jute	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Sambalpur	2,689	Cuttack	823
Champaran	2,565		
Patna	2,204		
Puri	1,919		
Manbhum	1,210		
Bhagalpur	1,196		
Angul	1,196		

TABLE XI—*contd.*

Punjab

Rice (unhusked)		Wheat		Barley		Jawar	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb per acre)	Name of District	Average yield (lb. per acre)
Gujranwala	1,700	Rohtak ...	1180	Gurgaon ...	1,340	Rohtak ...	800
Lyallpur ...	1,600	Ludhiana ...	1,160	Rohtak ...	1,200	Gurgaon ...	600
Amritsar ...	1,600	Jalandhar ...	1,140	Ludhiana ...	1,160	Gurdaspur	580
Sialkot ...	1,600	Karnal ...	1,070	Hissar ...	1,100	Ludhiana ...	570
Hoshiarpur	1,500	Ambala ...	1,060	Jalandhar ...	1,100	Jhang ...	560
Lahore ...	1,280	Amritsar ...	1,050	Ferozpur ...	1,060	Lyallpur ...	560
Gurdaspur ...	1,240	Gurdaspur	1,050	Lahore ...	1,060	Gujrat ...	540
Gujrat ...	1,220	Gurgaon ...	1,040	Shahpur ...	1,040	Karnal ...	520
Montgomery	1,200	Hissar ...	1,000	Karnal ...	1,030	Ambala ...	520
Ambala ...	1,100	Lyallpur ...	1,000	Lyallpur ...	1,000	Ferozpur ...	520
Jalandhar ...	1,100	Ferozpur ...	960	Amritsar ...	1 000	Lahore ...	520
Rohtak ...	1,000	Lahore ...	960	Gurdaspur	1,000	Montgomery	500
Ferozpur ...	1,000	Sialkot ...	960	Sialkot ...	1,000	Hissar ...	480
Shahpur ...	1,000	Gujrat ...	900	Gujrat ...	1,000	Multan ...	470
Muzaffargarh	1,000	Jhelum ...	860	Jhelum ...	1,000	Dera Ghazi Khan ...	430
Rawalpindi	990	Hoshiarpur	840	Attock ...	940		
Kangra ...	900	Shahpur ...	840	Ambala ...	900	Muzaffargarh	430
Hissar ...	920	Jhang ...	820	Montgomery	900	Mianwali ...	420
Karnal ...	870	Gujranwala	820	Hoshiarpur	830	Shahpur ...	420
Multan ...	870	Attock ...	770	Jhang ...	820	Gujranwala	260
Dera Ghazi Khan ...	800	Multan ...	760	Rawalpindi	810		
Ludhiana ...	560	Montgomery	760	Gujranwala	800		
		Rawalpindi	710	Dera Ghazi Khan ...	750		
		Dera Ghazi Khan ...	700	Multan ...	720		
		Muzaffargarh	700	Muzaffargarh	720		
		Simla ...	600	Mianwali ...	520		
		Kangra ...	500	Kangra ...	460		
		Mianwali ...	500				

TABLE XI—*contd.*

Punjab—*contd.*

Bajra		Maize		Gram		Rape seed	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Attock ...	800	Ludhiana ...	1,560	Karnal ...	980	Ludhiana ...	730
Jhelum ...	780	Attock ...	1,440	Ambala ...	980	Gurdaspur...	630
Rawalpindi	710	Jalandhar...	1,400	Gurgaon ...	960	Gurgaon ...	600
Gujrat ...	680	Hoshiarpur	1,360	Ludhiana ...	900	Amritsar ...	580
Shahpur ...	640	Rawalpindi	1,270	Jhelum ...	830	Karnal ...	560
Sialkot ...	600	Ferozpur ...	1,200	Rohtak ...	820	Ambala ...	560
Gurdaspur...	580	Amritsar ...	1,130	Jalandhar. .	800	Lyallpur ...	560
Jhang ...	560	Karnal ...	1,120	Amritsar ...	740	Shahpur ...	560
Lyallpur ...	560	Ambala ...	1,120	Hoshiarpur	700	Rohtak ...	500
Lahore ...	560	Gurdaspur	1,120	Hissar ...	680	Ferozpur ...	500
Hoshiarpur	530	Lahore ...	1,100	Montgomery	650	Lahore ...	500
Gurgaon ...	520	Jhelum ...	1,040	Ferozpur ...	6[illegible]0	Hoshiarpur	480
Ambala ...	520	Sialkot ...	1,020	Lyallpur ...	600	Jhang ...	480
Karnal ...	500	Shahpur ...	960	Sialkot ...	600	Montgomery	480
Multan ...	500	Gujrat ...	860	Gujrat ...	600	Sialkot ...	480
Montgomery	500	Gujranwala	840	Gujranwala	600	Gujrat ...	480
Ferozpur ...	480	Jhang ...	800	Shahpur ...	600	Attock ...	480
Mianwali ...	480	Lyallpur ...	800	Lahore ...	580	Hissar ...	420
Gujranwala	480	Kangra ...	720	Gurdaspur	580	Jhelum ...	420
Rohtak ...	470	Montgomery	720	Jhang ...	500	Gujranwala	400
Hissar ...	460	Multan ...	620	Attock ...	500	Kangra . .	360
Muzaffargarh	450			Multan ...	480	Mianwali ...	330
Dera Ghazi Khan ...	420			Mianwali ...	480	Rawalpindi	290
Ludhiana ...	400			Muzaffargarh	340	Multan ...	270
				Dera Ghazi Khan ...	300	Muzaffargarh	270
						Dera Ghazi-Khan ..	240

TABLE XI—*contd.*

Punjab—*concld.* | **Upper Burma**

Sugarcane (*gur*)		Cotton (cleaned)		Rice	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Rohtak ...	2,650	Jalandhar ...	192	Minbu ...	1,527
		Karnal ...	175		
Jalandhar ...	2,300	Rohtak ...	174	Myitkyina ...	1,349
		Ludhiana ...	165		
Gurdaspur ...	2,300	Hoshiarpur ...	164	Katha ...	1,342
		Amritsar ...	147		
Karnal ...	2,140	Jhelum ...	146	Shwebo ...	1,241
		Ambala ...	144		
Ambala ...	2,140	Gujrat ...	144	Thayetmyo ...	1,222
		Gurgaon ...	140		
Hoshiarpur ...	2,000	Hissar ...	136	Yamethin ...	1,162
		Sialkot ...	135		
Ludhiana ...	2,000	Lahore ...	132	Magwe ...	1,097
		Shahpur ...	132		
Amritsar ...	2,000	Gurdaspur ...	126	Pakokku ...	1,068
		Lyallpur ...	124		
Gurgaon ...	1,720	Ferozpur ...	120	Kyaukse ...	1,040
		Rawalpindi ...	116		
Lahore ...	1,700	Montgomery ...	114	Mandalay ...	1,024
		Jhang ...	107		
Sialkot ...	1,640	Gujranwala ...	102	Bhamo ...	968
		Attock ...	100		
Shahpur ...	1,600	Dera Ghazi Khan ...	100	Lower Chindwin ...	777
Lyallpur ...	1,500	Multan ...	96		
		Muzaffargarh ...	80	Sagaing ...	733
Multan ...	1,430	Mianwali ...	78		
		Kangra ...	48	Myingyan ...	706
Gujrat ...	1,300				
				Meiktila ...	583
Gujranwala ...	1,280				
Muzaffargarh ...	1,200				
Attock ...	780				

TABLE XI—*contd.*

Central Provinces and Berar

Rice (husked) transplanted		Rice husked) broadcast		Wheat		Jawar	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Seoni ...	990	Seoni ...	930	Saugor ...	1,000	Damoh ...	580
Nagpur ...	990	Nagpur ...	930	Nimar ...	1,000	Jubbulpore	580
Chanda ...	990	Chanda ...	930	Betul ...	1,000		
Bhandara ...	990	Bhandara ...	930	Chhindwara	1,000		
Balaghat ...	990	Balaghat ...	930	Wardha ...	1,000		
Raipur ...	990	Raipur ...	930	Nagpur ...	1,000		
Bilaspur ...	990	Bilaspur ...	930	Buldana (Berar) ...	1,000		
Drug ...	990	Drug ...	930				

Gram		Sugarcane (*gur*)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Damoh	500	Nimar	3,500
Jubbulpore	480	Betul	3,500
		Chhindwara ...	3,500
		Chanda	3,500
		Wardha	3,000
		Nagpur	3,000
		Raipur	3,000
		Akola (Berar) ...	3,000
		Amraoti (Berar) ...	3,000
		Buldana (Berar) ...	3,000
		Yeotmal (Berar) ...	3,000
		Bilaspur	2,500
		Saugor	1,500
		Damoh	1,500
		Jubbulpore	1,500
		Mandla	1,500
		Seoni	1,500
		Narsingpur	1,500
		Hoshangabad ...	1,500
		Bhandara	1,500
		Balaghat	1,500
		Drug	1,500

TABLE XI—*contd.*

North-West Frontier

Rice (husked)		Wheat		Barley		Bajra	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Hazara ...	1,234	Peshawar ...	977	Dera Ismail Khan ...	1,374	Kohat ...	1,029
Peshawar ...	1,166	Dera Ismail Khan ..	840	Peshawar...	1,312	Dera Ismail Khan ...	648
		Kohat ...	823	Kohat ...	823	Bannu ...	617
		Hazara ...	741	Hazara ...	782	Hazara ...	494
		Bannu ...	741	Bannu ...	700		

Maize		Gram		Rape and mustard		Sugarcane (*gur*)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre	Name of District	Average yield (lb. per acre)
Peshawar ...	2,226	Bannu ...	741	Peshawar...	625	Peshawar ...	2,575
Hazara ...	1 316	Kohat ...	453	Hazara ...	432	Hazara ...	1,975
Kohat ...	1,029			Bannu ...	412	Bannu ...	1,975
Bannu ...	864			Kohat ...	329		

Cotton (cleaned)	
Name of District	Average yield (lb. per acre)
Peshawar	185
Bannu	113
Kohat	103
Hazara	93

TABLE XI—*concld.*

Ajmer-Merwara

Barley		Maize		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb per acre)	Name of District	Average yield (lb. per acre)
Ajmer ...	1,375	Ajmer ...	1,104	Ajmer ...	235
Merwara ...	1,121	Merwara ...	788	Merwara ...	125

Mysore

Rice (husked)		Sugarcane (*gur*)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Mysore	1,030	Kolar	4,947
Kadur	829	Mysore	4,396
Kolar	819	Bangalore	3,639
Hassan	814	Tumkur	2,758
Chitaldrug	735	Chitaldrug	2,384
Shimoga	689	Hassan	2,348
Tumkur	678	Kadur	2,075
Bangalore	570	Shimoga	989

TABLE XII.

Showing the **average yield** (lb. per acre) of principal crops in **unirrigated area**, revised with reference to crop experiments made up to the year 1911-12.

N. B.—This table is worked out from Appendix A of Agricultural Statistics of India 1912-13—Volume I.

By Districts ***British Territory***

Bengal

Winter rice (Transplanted)		Winter rice (Broadcast)		Autumn rice (Transplanted)		Autumn rice (Broadcast)		Summer rice (Transplanted)		Summer rice (Broadcast)		Wheat		Barley	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Chittagong Hill Tracts	1,900	Malda ...	1,644	24-Parganas ...	1,323	24-Parganas ...	1,018	Chittagong	1,250	Maimensingh ...	1,469	Murshidabad ...	695	Nadia ...	1,234
Dacca ...	1,619	24-Parganas	1,426	Chittagong	1,130	Chittagong Hill Tracts	1,000	Maimensingh ...	1,174	Chittagong	844	Malda ...	566	Murshidabad ...	882
24-Parganas	1,254	Chittagong	1,388	Bardwan	1,109	Rangpur...	976					Dacca ...	517	Bardwan	826
Chittagong	1,154	Birbhum ...	1,222	Chittagong Hill Tracts	1,018	Faridpur	975								
Malda ...	1,151	Nadia ...	1,151	Midnapur	980	Tippera...	946								
Maimensingh	1,123	Khulna ...	1,146	Khulna...	900	Jessore...	941								
Hooghly ...	1,116	Tippera ...	1,029	Hooghly	696	Dinajpur	911								
Darjeeling...	1,101	Maimensingh	1,001	Backerganj	530	Nadia ...	901								

TABLE XII—*contd.*

Bengal—contd.

Winter rice (Transplanted)		Winter rice (Broadcast)		Autumn rice (Transplanted)		Autumn rice (Broadcast)		Summer rice (Tansplanted)		Summer rice (Broadcast)		Wheat		Barley	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Dinajpur ...	1,087	Rajshahi ...	994	Dinajpur	469	Malda ...	846								
Bardwan ...	1,082	Noakhali ...	943			Chittagong ...	846								
Khulna ..	1,078	Hooghly ...	935			Bogra ...	827								
Jalpaiguri ...	1,070	Dacca ...	905			Murshidabad ...	819								
Jessore ...	1,068	Faridpur ...	887			Midnapur	811								
Nadia ...	1,056	Jessore ...	811			Maimensingh ...	748								
Murshidabad	1,053	Midnapur...	801			Rajshahi	727								
Birbhum ...	1,023	Bogra ...	713			Patna ...	720								
Bogra ...	1,023	Rangpur ..	706			Dacca ...	718								
Rangpur ...	1,002	Darjeeling	698			Khulna...	716								
Tippera ...	910	Patna ...	657			Hoogh'y	714								
Howrah ...	908	Dinajpur ...	656			Jalpaiguri	709								
Backerganj	889					Backerganj ...	709								
Rajshahi ...	868					Darjeeling	666								
Noakhali ...	849					Noakhali	642								
Midnapur ...	813					Bardwan	632								

TABLE XII—*contd.*

Bengal—*concld.*

Gram		Rape and mustard		Linseed		Sesamum (til)		Sugarcane (*gur*)		Cotton (cleaned)		Jute	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Murshidabad	1,626	Dacca ...	876	Murshidabad	556	Pabna ...	679	Bibhum ...	5,811	Chittagong Hill Tracts	128	Khulna ...	2,468
Dacca ...	1,003	Pabna ...	690	Nadia ...	432	Dacca ...	679	Chittagong	4,600			Faridpur ...	1,719
Nadia ...	709	Jalpaiguri	660	Malda ...	250	Maimensingh ...	470	Pogra ...	3,616	Jalpaiguri	80	Dacca ...	1,394
Malda ...	330	Malda ...	625	Dacca ...	140	Noakhali ...	237	Rangpur ...	3,587			Midnapur...	1,342
		Chittagong Hill Tracts	540					Hooghly ...	3,350			Murshidabad	1,308
		Dinajpur ...	461					Faridpur ...	2,966			Tippera ...	1,297
		Maimensingh	377					Maimensingh ...	2,784			Jessore ...	1,249
		Rangpur ...	295					Nadia ...	2,730			24 Parganas	1,239
		Faridpur ...	285					Howrah ...	1,656			Maimensingh	1,225
		Jessore ...	244					Dinajpur ...	1,396			Rangpur ...	1,216
		Noakhali ...	209					Rajshahi ...	1,089			Rajshahi ...	1,201
								Jalpaiguri	1,000			Pabna ...	1,181
								Backerganj	871			Dinajpur ...	1,159
												Nadia ...	1,077
												Bogra ...	1,072
												Hooghly ...	1,057
												Darjeeling	994
												Jalpaiguri	978
												Howrah ...	898
												Backerganj	894
												Malda ...	848

TABLE XII—*contd.*

Madras

Rice (husked)		Jawar		Bajra		Ragi		Til or jinjili (Sesamum)		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Nilgiris ...	1,335	Coimbatore ...	1,180	Nellore ...	986	Cuddapah ...	1,743	North Arcot...	432	Kistna ...	113
South Canara	1,014	Tinnevelly ...	1,065	Vizagapatam ...	873	Coimbatore ...	1,652	Vizagapatam	401	Tinnevelly ...	82
Malabar ...	753	Godavari ...	989	Cuddapah ...	826	Guntur ...	1,543	Coimbatore ...	380	Madura ...	71
		North Arcot...	932	Tanjore ...	780	Malabar ...	1,356	South Arcot...	340	Guntur ...	70
		Madura ...	908	Salem ...	779	Nellore ...	1,232	Tinnevelly ...	298	Coimbatore ...	67
		Salem ...	843	Guntur ...	713	Tinnevelly ...	1,196	Tanjore ...	270	Ramnad ...	53
		Kistna ...	818	Chingleput ...	698	Kistna ...	1,110	Salem ...	260	Bellary ...	52
		Guntur ...	720	South Arcot ...	693	Madura ...	1,109	Ganjam ...	248	Karnul ...	49
		Anantapur ...	689	Ganjam ...	684	Anantapur ...	1,085	Bellary ...	232	Trichinopoly	40
		Cuddapah ...	661	North Arcot ...	667	South Arcot ...	1,040	Madura ...	232	Anantapur ...	39
		Nellore ...	617	Kistna ...	616	North Arcot ...	1,038	Kistna ...	228	Cuddapah ...	36
		Trichinopoly	613	Coimbatore ...	594	Vizagapatam ...	996	Chingleput ...	228	Nellore ...	20
		Karnul ...	591	Godavari ...	589	Salem ...	970	Trichinopoly	213	Salem ...	18
		Bellary ...	486	Trichinopoly ...	522	Nilgiris ...	962	Nellore ...	182		
				Karnul ...	516	Trichinopoly ...	868	Karnul ...	167		
				Anantapur ...	477	Godavari ...	841	Malabar ...	143		
				Bellary ...	471	Chingleput ...	805	Anantapur ...	140		
				Tinnevelly ...	461	Karnul ...	752	Godavari ...	136		
				Madura ...	449	Ganjam ...	714				
						Tanjore ...	502				
						Bellary ...	447				

TABLE XII—*contd.*

Bombay

Rice (husked)		Wheat		Jawar		Bajra	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Surat	1,560	Panch Mahals ...	700	Panch Mahals (Kharif)	1,190	Kaira	970
Ahmadabad ...	1,440	Kaira	600	Broach (Kharif) ...	1,160	Ahmadabad ...	840
Kaira	1,320	Broach	600	Ahmadabad (Kharif)	1,080	Panch Mahals ...	825
Kolaba	1,320	West Khandesh ...	600	Kaira (Kharif) ...	1,050	Broach	700
Kanara	1,320	East Khandesh ...	600	Broach (Rabi) ...	1,020	Surat	600
Panch Mahals ...	1,200	Ahmadabad ...	560	Dharwar ...	1,000	West Khandesh ...	450
Tanna	1,200	Surat	560	Belgaum ...	800	Dharwar ...	450
Belgaum ...	1,140	Belgaum ...	560	Surat (Kharif) ...	760	Belgaum ...	400
Dharwar ...	1,140	Dharwar ...	500	West Khandesh (Kharif) ...	720	East Khandesh ..	380
Poona	1,120	Satara	480	East Khandesh (Kharif) ...	720	Nasik	360
Satara	1,120	Nasik	460	Satara (Kharif) ...	720	Satara	360
West Khandesh ...	1,080	Ahmadnagar ...	460	Bijapur	540	Ahmadnagar ...	340
East Khandesh ...	1,080	Sholapur ...	400	Ahmrdnagar (Rabi) ...	540	Poona	340
Nasik	1,080	Bijapur ...	400	Sholapur (Rabi) ...	540	Sholapur ...	320
Ahmadnagar ...	1,040	Poona	350	Nasik	520	Bijapur ...	320
Ratnagiri ...	1,020			Poona	500		
Broach	900						
Sholapur ...	900						
Bijapur... ..	800						

TABLE XII—*contd.*

Bombay—contd.

Ragi		Maize		Gram		Linseed	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Broach ...	1,500	Panch Mahals ...	1,190	Panch Mahals ...	600	Panch Mahals ...	360
Kanara ...	1,470			Ahmadabad ...	500	West Khandesh ...	360
Ahmadabad ...	1,440			Kaira	500	East Khandesh ...	360
Kaira ...	1,440			Broach	500	Nasik	360
Panch Mahals ...	1,420			Surat	500	Ahmadnagar ...	360
Surat	1,200			West Khandesh ...	500	Poona	360
Dharwar ...	1,200			East Khandesh ...	500	Sholapur ...	360
West Khandesh ...	900			Dharwar ...	500	Satara	360
East Khandesh ...	900			Kanra ...	480	Belgaum ...	360
Ahmadnagar ..	900			Belgaum ...	400	Bijapur	360
Poona	900			Tanna	400	Dharwar ..	360
Satara	900			Ahmadnagar ...	380	Ahmadabad ...	350
Belgaum ...	900			Satara	380		
Nasik	850			Kolaba ...	380		
Kolaba	800			Sholapur ...	360		
Tanna	770			Nasik	350		
Ratnagiri ...	680			Bijapur	340		

TABLE XII—*contd.*

Bombay—*concld.*

Sesamum (til or jinjili)		Cotton (cleaned)		Rape and mustard		Kodra	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per (acre	Name of District	Average yield (lb. per acre)
Broach	450	Broach	130	Kaira	675	Ahmadabad ...	1,320
Ahmadabad ...	400	Ahmadabad ..	125			Kaira	1,275
Kaira	400	Surat	120	Ahmadabad ...	640	Panch Mahals ...	1,130
Panch Mahals ...	400	Dharwar ...	120			Surat	1,120
Surat	400	Kaira	115	Panch Mahals ...	600	Broach	1,025
West Khandesh ...	400	Panch Mahals ...	100			West Khandesh ...	900
East Khandesh ...	400	West Khandesh ...	100			East Khandesh ...	900
Nasik	400	Belgaum ...	100			Kolaba	800
Ahmadnagar ...	400	East Khandesh ...	90			Ratnagiri ...	675
Poona	400	Nasik	90			Tanna... ...	640
Sholapur ...	400	Ahmadnagar ...	90				
Satara	400	Poona	90				
Belgaum ...	400	Sholapur ...	90				
Bijapur	400	Satara	90				
Dharwar ...	400	Bijapur	90				
Tanna	400						
Kolaba	400						
Ratnagiri ...	400						

TABLE XII—*contd.*

United Provinces of Agra and Oudh

Rice (husked)			Wheat			Barley		
	Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)
Almora	Naini Tal ...	1,400	Bahraich	Bahraich ...	1,050	Sitapur	Sitapur ...	1,100
	Almora ...			Pilibit ...			Hardoi ...	
	Garhwal ...			Kheri ...		Bahraich	Bahraich ...	1,100
	Dehra Dun ..		Almora	Naini Tal ...	1,000		Pilibit ...	
Bahraich	Bahraich ...	900		Almora ...			Kheri ...	
	Pilibit ...			Garhwal ...		Moradabad	Moradabad ...	1,000
	Kheri ...			Dehra Dun ...			Saharanpur ...	
Ballia	Ballia ...	900	Bulandshahr	Bulandshahr ...	900		Bijnor ...	
	Ghazipur ...			Aligarh ...			Bareli ...	
	Azamgarh ...		Sitapur	Sitapur ...	900	Muzaffarnagar	Muzaffarnagar ...	1,000
Basti	Basti ...	900		Hardoi ...			Meerut ...	
	Gonda ...							
	Gorakhpur ...							
Moradabad	Moradabad ...	800						
	Shahjahanpur ...							
	Bijnor ...							
	Bareli ...							

Muzaffarnagar	Muzaffarnagar	...	800	Moradabad	Muzaffarnagar	...	850	Bulandshahr	...
Meerut	Meerut	...				...		Aligarh	...
Sitapur	Moradabad	...	800	Budaun	Budaun	...	800	Budaun	...
Hardoi	Saharanpur	...				...		Shahjahanpur	...
	Bijnor	...				...			
	Bareli	...				...			
Unao	Unao	...	800	Budaun	Budaun	...	800	Mainpuri	...
Lucknow	Budaun	...				...		Etah	...
Rae-Bareli	Shahjahanpur	...				...		Etawah	...
								Farukhabad	...
Sultanpur	Basti	...	800	Basti	Basti	...	800	Sultanpur	...
Barabanki	Gonda	...				...		Barabanki	...
Partabgarh	Gorakhpur	...				...		Partabgarh	...
Fyzabad	Ballia	...	800	Ballia	Ballia	...	750	Fyzabad	...
Fatehpur	Ghazipur	...				...			
Cawnpore	Azamgarh	...				...			
Allahabad	Mainpuri	...	800	Mainpuri	Mainpuri	...	700	Benares	...
	Etah	...				...		Jaunpur	...
Budaun	Etawah	...				...		Mirzapur	...
Shahjahanpur	Farukhabad	...	750	Mattra	Mattra	...	700	Ballia	...
	Mattra	...				...		Ghazipur	...
Bulandshahr	Agra	...				...		Azamgarh	...
Aligarh	Jhansi	...	700	Jhansi	Jhansi	...	650		
	Jalaun	...				...			

TABLE XII— *contd.*

United Provinces of Agra and Oudh—*contd.*

Rice (husked)			Wheat			Barley		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)
Banda Benares	Benares ...	700	Sultanpur	Sultanpur ...	650	Muttra	Muttra ...	750
	Jaunpur ...			Barabanki ...			Agra ...	
	Mirzapur ...			Partabgarh ...		Basti	Basti ...	750
	Banda ...	700	Unao	Fyzabad ...	600		Gonda ...	
	Hamirpur ...			Unao ...			Gorakhpur ...	
Mainpuri	Mainpuri ...	600		Lucknow ...		Unao	Unao ...	700
	Etah ...			Rae-Bareli ...			Lucknow ...	
	Etawah ...		Fatehpur	Fatehpur ...	600		Rae-Bareli ...	
	Farukhabad ...			Cawnpore ...		Fatehpur	Fatehpur ...	700
Muttra	Muttra ...	550		Allahabad ...			Cawnpore ...	
	Agra ...		Banda Benares	Benares ...	600		Allahabad ...	
Jhansi	Jhansi ...	550		Jaunpur ...		Banda Jhansi	Jhansi ...	500
	Jalaun ...			Mirzapur ...			Jalaun ...	
				Banda ...	500		Banda ...	500
				Hamirpur ...			Hamirpur ...	

TABLE XII—*contd.*

United Provinces of Agra and Oudh—*contd.*

Jawar			Bajra			Maize		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)
Muzaffarnagar	Muzaffarnagar ...	700	Ballia	Ballia ...	700	Bahraich	Bahraich ...	1,300
	Meerut ...			Ghazipur ...			Pilibit ...	
Moradabad	Moradabad ...	650		Azamgarh ...			Kheri ...	
	Saharanpur ...		Bulandshahr	Bulandshahr ...	650	Muzaffarnagar	Muzaffarnagar ...	1,200
	Bijnor ...			Aligarh ...			Meerut ...	
	Bareli ...		Muttra	Muttra ...	650	Bulandshahr	Bulandshahr ...	1,200
Bulandshahr	Bulandshahr ...	650		Agra ...			Aligarh ...	
	Aligarh ...		Sultanpur	Sultanpur ...	650	Mainpuri	Mainpuri ...	1,200
Mainpuri	Mainpuri ...	650		Barabanki ...			Etah ...	
	Etah ...			Partabgarh ...			Etawah ...	
	Etawah ...			Fyzabad ...			Farukhabad ...	
	Farukhabad ...							

TABLE XII—contd.

United Provinces of Agra and Oudh—contd.

Jawar

Name of Division and District	Average yield (lb. per acre)
Benares Fatehpur Sultanpur Unao Sitapur Budaun Muttra — Muttra	650
Benares Fatehpur Sultanpur Unao Sitapur Budaun Muttra — Agra	650
Benares Fatehpur Sultanpur Unao Sitapur Budaun — Budaun	650
Benares Fatehpur Sultanpur Unao Sitapur Budaun — Shahjahanpur	650
Benares Fatehpur Sultanpur Unao Sitapur — Sitapur	650
Benares Fatehpur Sultanpur Unao Sitapur — Hardoi	650
Benares Fatehpur Sultanpur Unao — Unao	650
Benares Fatehpur Sultanpur Unao — Lucknow	650
Benares Fatehpur Sultanpur Unao — Rae-Bareli	650
Benares Fatehpur Sultanpur — Sultanpur	650
Benares Fatehpur Sultanpur — Barabanki	650
Benares Fatehpur Sultanpur — Partabgarh	650
Benares Fatehpur Sultanpur — Fyzabad	650
Benares Fatehpur — Fatehpur	650
Benares Fatehpur — Cawnpore	650
Benares Fatehpur — Allahabad	650
Benares — Benares	650
Benares — Jaunpur	650
Benares — Mirzapur	650

Bajra

Name of Division and District	Average yield (lb. per acre)
Mainpuri Moradabad Fatehpur Bahraich Sitapur Budaun Unao — Unao	600
Mainpuri Moradabad Fatehpur Bahraich Sitapur Budaun Unao — Lucknow	600
Mainpuri Moradabad Fatehpur Bahraich Sitapur Budaun Unao — Rae-Bareli	600
Mainpuri Moradabad Fatehpur Bahraich Sitapur Budaun — Budaun	550
Mainpuri Moradabad Fatehpur Bahraich Sitapur Budaun — Shahjahanpur	550
Mainpuri Moradabad Fatehpur Bahraich Sitapur — Sitapur	550
Mainpuri Moradabad Fatehpur Bahraich Sitapur — Hardoi	550
Mainpuri Moradabad Fatehpur Bahraich — Bahraich	550
Mainpuri Moradabad Fatehpur Bahraich — Pilibit	550
Mainpuri Moradabad Fatehpur Bahraich — Kheri	550
Mainpuri Moradabad Fatehpur — Fatehpur	550
Mainpuri Moradabad Fatehpur — Cawnpore	550
Mainpuri Moradabad Fatehpur — Allahabad	550
Mainpuri Moradabad — Moradabad	500
Mainpuri Moradabad — Saharanpur	500
Mainpuri Moradabad — Bijnor	500
Mainpuri Moradabad — Bareli	500
Mainpuri — Mainpuri	500
Mainpuri — Etah	500
Mainpuri — Etawah	500
Mainpuri — Farukhabad	500

Maize

Name of Division and District	Average yield (lb. per acre)
Fatehpur Moradabad Ballia Sultanpur Unao Sitapur Budaun — Budaun	1,200
Fatehpur Moradabad Ballia Sultanpur Unao Sitapur Budaun — Shahjahanpur	1,200
Fatehpur Moradabad Ballia Sultanpur Unao Sitapur — Sitapur	1,200
Fatehpur Moradabad Ballia Sultanpur Unao Sitapur — Hardoi	1,200
Fatehpur Moradabad Ballia Sultanpur Unao — Unao	1,100
Fatehpur Moradabad Ballia Sultanpur Unao — Lucknow	1,100
Fatehpur Moradabad Ballia Sultanpur Unao — Rae-Bareli	1,100
Fatehpur Moradabad Ballia Sultanpur — Sultanpur	1,100
Fatehpur Moradabad Ballia Sultanpur — Barabanki	1,100
Fatehpur Moradabad Ballia — Partabgarh	1,100
Fatehpur Moradabad Ballia — Fyzabad	1,100
Fatehpur Moradabad Ballia — Ballia	1,100
Fatehpur Moradabad Ballia — Ghazipur	1,100
Fatehpur Moradabad Ballia — Azamgarh	1,100
Fatehpur Moradabad — Moradabad	1,000
Fatehpur Moradabad — Saharanpur	1,000
Fatehpur Moradabad — Bijnor	1,000
Fatehpur Moradabad — Bareli	1,000
Fatehpur — Fatehpur	1,000
Fatehpur — Cawnpore	1,000
Fatehpur — Allahabad	1,000

TABLE XII—contd.

United Provinces of Agra and Oudh—*contd.*

Jawar			Bajra			Maize		
	Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)
Ballia	Ballia Ghazipur Azamgarh	650	Benares	Benares Jaunpur Mirzapur	500	Benares	Benares Jaunpur Mirzapur	1,000
Basti	Basti Gonda Gorakhpur	650	Muzaffarnagar	Muzaffarnagar Meerut	450	Basti	Basti Gonda Gorakhpur	1,000
Bahraich	Bahraich Pilibit Kheri	600	Basti	Basti Gonda Gorakhpur	400	Muttra	Muttra Agra	800
Jhansi	Jhansi Jalaun	550	Jhansi	Jhansi Jalaun	400	Jhansi	Jhansi Jalaun	650
Banda	Banda Hamirpur	550	Banda	Banda Hamirpur	400	Banda	Banda Hamirpur	650

TABLE XII—*contd.*

United Provinces of Agra and Oudh—contd.

Gram			Peas			Arhar			Linseed		
Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)	Name of Division and District		Average yield (lb. per acre)
Bahraich	Bahraich ...	950	Bulandshahr	Bulandshahr ...	650	Ballia	Ballia ...	900	Ballia	Ballia ...	650
	Pilibit ...			Aligarh ...			Ghazipur ...			Ghazipur ...	
	Kheri ...						Azamgarh ...			Azamgarh ...	
Sultanpur	Sultanpur ...	950	Sitapur	Sitapur ...	650	Sultanpur	Sultanpur ...	850	Sitapur	Sitapur ...	500
	Barabanki ...			Hardoi ...			Barabanki ...			Hardoi ...	
	Partabgarh ...		Unao	Unao ...	650		Partabgarh ...		Bahraich	Bahraich ...	500
	Fyzabad ...			Lucknow ...			Fyzabad ...			Pilibit ...	
Sitapur	Sitapur ...	900		Rae Bareli ...		Bahraich	Bahraich ...	800		Kheri ...	
	Hardoi ...		Sultanpur	Sultanpur ...	650		Pilibit ...		Sultanpur	Sultanpur ...	500
Unao	Unao ...	900		Barabanki ...			Kheri ...			Barabanki ...	
	Lucknow ...			Partabgarh ...		Unao	Unao ...	700		Partabgarh ...	
	Rae-Bareli ...			Fyzabad ...			Lucknow ...			Fyzabad ...	
Fatehpur	Fatehpur ...	900	Ballia	Ballia ...	650		Rae-Bareli ...		Benares	Benares ...	500
	Cawnpore ...			Ghazipur ...		Benares	Benares ...	700		Jaunpur ...	
	Allahabad ...			Azamgarh ...			Jaunpur ...			Mirzapur ...	
							Mirzapur ...				

Ballia Ghazipur Azamgarh	...	900	Bahraich Pilibit Kheri	...	600	Basti Gonda Gorakhpur	...	650	Basti Gonda Gorakhpur	...	500
Muzaffarnagar Meerut	...	800	Basti Gonda Gorakhpur	...	600	Sitapur Hardoi	...	550	Banda Hamirpur	...	500
Bulandshahr Aligarh	...	800	Muzaffarnagar Meerut	...	550	Fatehpur Cawnpore Allahabad	...	550	Moradabad Saharanpur Bijnor Bareli	...	400
Budaun Shahjahanpur	...	800	Mainpuri Etah Etawah Farukhabad	...	550	Banda Hamirpur	...	550	Budaun Shahjahanpur	...	400
Moradabad Saharanpur Bijnor Bareli	...	750	Fatehpur Cawnpore Allahabad	...	550				Unao Lucknow Rae-Bareli	...	400
Basti Gonda Gorakhpur	...	750	Benares Jaunpur Mirzapur	...	550				Fatehpur Cawnpore Allahabad	...	400
									Jhansi Jalaun	...	400

TABLE XII—*contd.*

United Provinces of Agra and Oudh

Gram			Peas			Arhar		Linseed	
	Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)	Name of Division and District	Average yield (lb. per acre)	Name of Division and District	Average yield (lb. per acre)
Banda	Banda ...	750	Moradabad	Moradabad ...	500				
	Hamirpur ...			Saharanpur ...					
Mainpuri	Mainpuri ...	700		Bijnor ...					
	Etah ...			Bareli ...					
	Etawah ...		Muttra	Muttra ...	400				
	Farukhabad ...			Agra ...					
Muttra	Muttra ...	700	Budaun	Budaun ...	400				
	Agra ...			Shahjahanpur ...					
Benares	Benares ...	600							
	Jaunpur ...								
	Mirzapur ...								
Jhansi	Jhansi ...	550							
	Jalaun ...								

TABLE XII—*contd.*

United Provinces of Agra and Oudh—*contd.*

Sesamum (til or jinjili)			Rape and mustard			Cotton (cleaned)		
	Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)		Name of Division and District	Average yield (lb. per acre)
Mainpuri	Mainpuri ...	410	Bahraich	Bahraich ...	700	Mainpuri	Mainpuri ...	160
	Etah ...			Pilibit ...			Etah ...	
	Etawah ...			Kheri ...			Etawah ...	
	Farukhabad ...		Ballia	Ballia ...	660		Farukhabad ...	
Muttra	Muttra ...	410		Ghazipur ...		Muttra	Muttra ...	150
	Agra ...			Azamgarh ...			Agra ...	
Sultanpur	Sultanpur ...	390	Sitapur	Sitapur ...	570	Muzaffarnagar	Muzaffarnagar ...	140
	Barabanki ...			Hardoi ...		Meerut	Meerut ...	
	Partabgarh ...		Basti	Basti ...	650			
	Fyzabad ...			Gonda ...				
Muzaffarnagar	Muzaffarnagar ...	350		Gorakhpur ...		Bulandshahr	Bulandshahr ...	130
	Meerut ...		Muzaffarnagar	Muzaffarnagar ...	490		Aligarh ...	
				Meerut				

TABLE XII—*contd*

United Provinces of Agra and Oudh—*contd.*

Sesamum (til or jinjili)

Name of Division and District		Average yield (lb. per acre)
Bulandshahr	Bulandshahr ...	350
	Aligarh ...	
Bahraich	Bahraich ...	330
	Pilibit ...	
	Kheri ...	
Moradabad	Moradabad ...	320
	Saharanpur ...	
	Bijnor ...	
	Bareli ...	
Badaun	Badaun ...	320
	Shahjahanpur ...	
Fatehpur	Fatehpur ...	320
	Cawnpore ...	
	Allahabad ...	
Sitapur	Sitapur ...	300
	Hardoi ...	
Unao	Unao ...	300
	Lucknow ...	
	Rae-Bareli ...	

Rape and mustard

Name of Division and District		Average yield (lb per acre)
Bulandshahr	Bulandshahr ...	490
	Aligarh ...	
Unao	Unao ...	490
	Lucknow ...	
	Rae-Bareli ...	
Moradabad	Moradabad ...	430
	Shahjahanpur ...	
	Bijnor ...	
	Bareli ...	
Badaun	Badaun ...	430
	Shahjahanpur ...	

Cotton (cleaned)

Name of Division and District		Average yield (lb. per acre)
Moradabad	Moradabad ...	160
	Saharanpur ...	
	Bijnor ...	
	Bareli ...	
Budaun	Badaun ...	120
	Shahjahanpur ...	
Fatehpur	Fatehpur ...	120
	Cawnpore ...	
	Allahabad ...	
Jhansi	Jhansi ...	120
	Jalaun ...	
Banda	Banda ...	120
	Hamirpur ...	
Sitapur	Sitapur ...	110
	Hardoi ...	
Bahraich	Bahraich ...	110
	Pilibit ...	
	Kheri ..	

TABLE XII—*contd.*

United Provinces of Agra and Oudh—*concld.*

Sesamum (til or jinjili)		Rape and mustard		Cotton (cleaned)	
Name of Division and District	Average yield (lb per acre)	Name of Division and District	Average yield (lb per acre	Name of Division and District	Average yield (lb. per acre)
Benares { Benares ... Jaunpur ... Mirzapur ... }	280			Unao { Unao ... Lucknow ... Rae-Bareli ... }	110
Ballia { Ballia ... Ghazipur ... Azamgarh ... }	280			Sultanpur { Sultanpur ... Barabanki ... Partabgarh ... Fyzabad ... }	110
Basti { Basti ... Gonda ... Gorakhpur ... }	280			Benares { Benares ... Jaunpur ... Mirzapur ... }	100
Jhansi { Jhansi ... Jalaun ... }	280			Ballia { Ballia ... Ghazipur ... Azamgarh ... }	100
Banda { Banda ... Hamirpur ... }	280			Basti { Basti ... Gonda ... Gorakhpur ... }	100

TABLE XII—*contd.*

Bihar and Orissa

Winter rice (transplanted)		Winter rice (broadcast)		Autumn rice (transplanted)		Autumn rice (broadcast)		Summer rice (tansplanted)		Wheat		Barley		Maize	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Manbhum ...	1,288														
Santhal Parganas ...	1,081	Muzaffarpur	1,304	Purnea	1,197	Sambalpur	792	Cuttack	964	Santhal Paraganas	1214	Purnea ...	1338	Manbhum	1470
Sambalpur...	1,038	Sambalpur	1,109	Bhagalpur	957	Singhbhum	778	Monghyr	246	Bhagalpur	831	Champaran ...	702	Muzaffarpur ..	1252
Singhbhum	899	Champaran	1,037	Cuttack	945	Cuttac	732			Champaran ...	784	Bhagalpur	699	Darbhanga ...	1108
Ranchi ...	880	Puri ...	970	Sambalpur	921	Champaran ...	464			Patna ...	667	Muzaffarpur ...	674	Monghyr	1008
Puri ...	826	Cuttack ...	958	Champaran	511	Ranchi...	464			Shahabad	663	Saran ...	583	Saran ...	936
Angul ...	824	Bhagalpur	951	Darbhanga	399	Manbhum	463			Saran ...	638	Palamau	552	Champaran ...	802
Bhagalpur ...	792	Darbhanga	900			Bhaghalpur ...	457			Purnea ...	625	Gaya ...	480	Hazaribagh ...	731
Gaya ...	735	Ranchi ...	893			Hazaribagh ...	414			Muzaffarpur ...	552	Patna ...	443	Santhal paraganas	730
Sahahabad...	784	Angul ...	865			Purnea ...	351			Monghyr	552	Darbhanga ...	436	Bhagalpur	601
Balasore ...	750	Purnea ...	851			Angul ...	271			Darbhanga ...	521	Monghyr	312	Gaya ...	577
Muzaffarpur	699	Balasore ...	736							Gaya ...	520	Shahabad	188	Angul ...	559
Cuttack ...	682	Saran ...	681							Palamau	335			Palamau	525
Patna ...	661	Shahabad ...	594											Patna ...	405
Purnea ...	646	Hazaribagh	483												
Hazaribagh	615	Patna ...	394												
Saran ...	513														
Monghyr ...	504														
Darbhanga	502														
Palamau ...	347														
Champaran	304														

TABLE XII—*contd.*

Bihar and Orissa—contd.

Ragi or marua		Kodo		Gram		Arhar		Peas		Masur		Rape and mustard		Linseed	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Gaya ...	1,015	Saran ...	731	Saran ...	1,029	Bhagalpur	1,154			Patna ...	791	Champaran ...	523	Champaran ..	1234
Muzaffarpur	872	Champaran ...	650	Gaya ...	1,005	Champaran ...	1,061	Saran ...	645	Darbhanga	504	Darbhanga	471	Gaya ...	414
Darbhanga	871			Shahabad	784	Monghyr	854	Patna...	554			Purnea ...	403	Patna ...	64
Manbhum	822			Patna ...	514	Patna ...	744					Muzaffarpur ...	298	Palamau	51
Ranchi ...	764			Purnea ...	501	Darbhanga	655					Angul ...	252	Bhagalpur	44
Saran ...	722			Monghyr	420	Saran ...	644					Palamau	170		
Bhagalpur	694			Palamau	329	Singhbhum ...	514					Patna ...	62		
Patna ...	623			Bhagalpur	269	Muzaffarpur ...	192								
Santhal Parganas ...	552			Darbhanga	254	Palamau	165								
Hazaribagh	440														

TABLE XII—*contd.*

Bihar and Orissa—concld

Potato		Sugarcane (*gur*)		Cotton (cleaned)		Jute	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Darbhanga	2084	Sambalpur ...	5,941	Ranchi ...	151	Cuttack ...	1114
		Champaran	4,469	Muzaffarpur	84	Purnea...	826
		Saran ...	2,895	Darbhanga...	63		
		Patna ...	1,581	Manbhum ...	43		
		Angul ...	1,509				

TABLE XII—*contd.*

Punjab

Rice (unhusked)		Wheat		Barley		Jawar	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb per acre)	Name of District	Average yield (lb. per acre)
Gujranwala	1,200	Ambala ...	720	Rohtak ...	860	Rohtak ...	530
Montgomery	1,150	Jalandhar ...	720	Jalandhar...	800	Ludhiana ...	530
Sialkot ...	1,000	Gurdaspur	720	Shahpur ...	720	Gujrat ...	480
Hoshiarpur	900	Hoshiarpur	700	Hoshiarpur	700	Jhang ...	460
Amritsar ...	840	Amritsar ...	640	Sialkot ...	700	Gurgaon ...	440
Gurdaspur ...	830	Rohtak ...	600	Gujrat ...	700	Gurdaspur	440
Jhelum ...	820	Jhang ...	600	Gurdaspur	680	Multan ...	420
Shahpur ...	800	Montgomery	600	Gurgaon ...	650	Montgomery	400
Muzaffargarh	800	Sialkot ...	600	Ferozpur ...	640	Sialkot ...	400
Dera Ghazi Khan ...	780	Gujrat ...	600	Montgomery	620	Mianwali ...	370
Ambala ...	720	Shahpur ...	600	Lahore ...	620	Ferozpur ...	360
Kangra ...	640	Gurgaon ...	570	Jhelum ...	620	Attock ...	360
Jalandhar ...	600	Karnal ...	560	Jhang ...	600	Ambala ...	350
Karnal ...	570	Simla ...	560	Kangra ...	580	Hissar ...	340
Lahore ...	520	Multan ...	530	Mianwali ...	580	Rawalpindi	340
Ferozpur ...	480	Ludhiana ...	520	Rawalpindi	580	Muzaffargarh	330
Ludhiana ...	440	Ferozpur ...	520	Karnal ...	560	Karnal ...	330
		Lahore ...	520	Ambala ...	560	Lahore ...	320
		Jhelum ...	500	Multan ...	560	Shahpur ...	320
		Dera Ghazi Khan ...	500	Amritsar ...	540	Gujranwala	260
		Muzaffargarh	500	Dera Ghazi Khan ...	540	Dera Ghazi Khan ...	210
		Hissar ...	480	Ludhiana ...	520		
		Mianwali ...	480	Muzaffargarh	520		
		Lyallpur ...	480	Attock ...	450		
		Rawalpindi	480	Hissar ...	440		
		Gujranwala	460	Gujranwala	440		
		Kangra ...	460				
		Attock ...	380				

TABLE XII—*contd.*

Punjab—*contd.*

Bajra		Maize		Gram		Rapeseed	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Gujrat ...	540	Rawalpindi	1,000	Jalandhar. .	720	Rohtak ...	440
Gurdaspur...	510	Hoshiarpur	900	Ambala ...	640	Ludhiana ...	430
Sialkot ...	500	Jalandhar...	860	Gujranwala	620	Ferozpur ...	400
Jhelum ...	440	Jhelum ...	820	Gurgaon ...	610	Montgomery	400
Shahpur ...	430	Gurdaspur...	750	Lyallpur ...	600	Amritsar ...	400
Rohtak ...	420	Kangra . .	720	Amritsar ...	600	Shahpur ...	400
Multan ...	420	Ludhiana ...	720	Sialkot ...	600	Hissar ...	370
Jhang ...	420	Sialkot ...	720	Gujrat ...	600	Gurgaon ...	370
Mianwali ...	420	Ambala ...	700	Shahpur ...	600	Karnal ...	360
Montgomery	400	Amritsar ...	670	Rohtak ...	580	Ambala ...	330
Rawalpindi	380	Karnal ..	640	Gurdaspur	570	Hoshiarpur	360
Ludhiana ...	370	Gujrat ...	620	Jhelum ...	570	Lahore ...	350
Ambala ...	360	Ferozpur ...	600	Hoshiarpur	560	Gurdaspur	350
Hoshiarpur	350	Jhang ...	580	Lahore ...	560	Gujranwala	350
Attock ...	350	Attock ...	580	Attock ...	540	Mianwali ...	330
Gurgaon ...	340	Gujranwala	500	Karnal ...	540	Sialkot ...	320
Gujranwala	340	Montgomery	480	Montgomery	520	Gujrat ...	320
Karnal ...	330	Lahore ...	480	Rawalpindi	510	Jhelum ...	280
Muzaffargarh	330	Shahpur ...	480	Jhang ...	500	Rawalpindi	280
Hissar ...	320			Ludhiana ...	480	Kangra ...	240
Ferozpur ...	320			Ferozpur ...	480	Jhang ...	240
Lahore ...	320			Hissar ...	460	Lyallpur ...	240
Dera Ghazi Khan ...	210			Dera Ghazi Khan ...	440	Attock ...	240
				Mianwali ...	430	Multan ...	210
				Multan ...	420	Dera Ghazi-Khan ..	200
				Muzaffargarh	420		
				Kangra ...	400	Muzaffargarh	200

TABLE XII—*contd.*

Punjab—concld.

Sugarcane (*gur*)		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Ambala ...	1,840	Jalandhar ...	132
		Gurgaon ...	116
Rohtak ...	1,740	Rohtak ...	108
		Hoshiarpur ...	98
Jalandhar ...	1,600	Karnal ...	96
		Ambala ...	96
Gurdaspur ...	1,520	Sialkot ...	96
		Gurdaspur ...	93
Hoshiarpur ...	1,500	Gujrat ...	90
		Hissar ...	86
Ludhiana ...	1,400	Amritsar ...	85
		Ferozpur ...	84
Karnal ...	1,250	Ludhiana ...	82
		Jhang ...	77
Sialkot ...	1,200	Gujranwala ...	76
		Mianwali ...	72
Amritsar ...	1,150	Lahore ...	72
		Montgomery ...	69
Gujranwala ...	1,070	Attock ...	68
		Multan ...	66
Lahore ...	1,000	Shahpur ...	66
		Dera Ghazi Khan ...	62
Gurgaon ...	930	Jhelum ...	61
		Muzaffargarh ...	52
Kangra ...	620	Kangra ...	48
		Rawalpindi ...	41

TABLE XII—*contd.*

Upper Burma

Rice		Wheat		Jawar		Gram		Sesamum (til or jinjili)		Cotton (cleaned)		Peas (Pegyi)		Peas (Pegya)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Myitkyina...	1,201	Minbu ...	665	Minbu ...	426	Pakokku	1,004	Minbu ...	526	Minbu ...	161	Minbu ...	986	Mandalay	1,119
Thayetmyo	1,074							Thayetmyo	351						
Upper Chindwin	1,069	Shwebo ...	536	Lower Chindwin	420	Minbu ...	779	Pakokku	262	Sagaing...	154	Mandalay	802	Minbu ..	1,101
								Shwebo ..	248						
Katha ...	1,043	Mandalay..	468			Mandalay	485	Mandalay	246	Thayetmyo	102	Sagaing...	726	Pakokku	1,080
				Pakokku	346			Yamethin	234						
Bhamo ...	1,015					Yamethin	313	Magwe ...	231	Meiktila	93	Pakokku	644	Lower Chindwin	1,069
Mandalay ...	1,005	Sagaing ...	289	Yamethin	312			Kyaukse	168						
Minbu ...	999					Shwebo...	279	Myingyan	166	Myingyan	77	Shwebo...	540		
Pakokku ...	887	Kyaukse ...	96	Myingyan	253			Lower Chindwin	146	Yamethin	69	Yamethin	486	Sagaing...	847
Yamethin ...	876					Sagaing...	269								
Lower Chindwin	811			Magwe ...	250			Meiktila...	146					Shwebo...	792
Shwebo ...	797							Sagaing ...	143	Shwebo	42				
Magwe ...	754			Sagaing	234									Meiktila...	212
Myingyan ...	644														
Meiktila ...	613			Meiktila	127										
Sagaing ...	603														
				Shwebo...	111										

TABLE XII—*contd.*

Lower Burma

Rice		Peas (Pegyi)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Toungoo	1,591	Tharawady ...	213
Maubin	1,522	Henzada ...	208
Tharawadi	1,501		
Henzada	1,383		
Myaungmya	1,331		
Pyapon	1,215		
Akyab	1,129		
Prome	1,127		
Pegu	1,113		
Hanthawaddy ...	1,075		
Mergui	1,016		
Sandoway	980		
Bassein	916		
Thaton	887		
Amherst	874		
Kyaukpyu	853		
Tavoy	694		

TABLE XII—*contd.*

Central Provinces

Rice (husked) transplanted		Rice (husked) Broadcast		Wheat		Jawar		Gram	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Mandla ...	650	Nimar ...	620	Narsingpur ...	660	Wardha ...	700	Jubbulpore	580
		Raipur ...	570	Nimar ...	640	Chanda ..	650	Mandla ...	580
Seoni ..	650	Bilaspur ...	570	Jubbulpore ...	620	Nimar ..	600	Seoni ...	580
		Drug ...	570	Seoni ...	620	Chhindwara ...	600	Narsingpur	580
Nagpur ...	650	Saugor ...	560	Hoshangabad...	620	Nagpur ...	600	Wardha ..	580
		Seoni ...	545	Betul ...	620	Betul ...	500	Nagpur ...	580
Chanda ...	650	Nagpur ...	545	Saugor ...	600	Jubbulpore ...	450	Chanda ...	550
		Chanda ...	545	Damoh ...	600	Seoni ...	450	Balaghat ...	550
Bhandara ...	650	Bhandara ...	545	Mandla ...	600	Narsingpur ...	450	Hoshangabad	520
		Balaghat ...	545	Chhindwara ...	600	Hoshangabad	450	Nimar ...	500
Balaghat ...	650	Mandla ...	525	Chanda ...	600	Bhandara ...	450	Betul ...	500
		Damoh ...	495	Raipur ...	600	Mandla ...	350	Chhindwara	500
Jubbulpore ...	620	Jubbulpore ...	495	Bilaspur ...	600	Balaghat ...	350	Bhandara ...	460
		Narsingpur ...	435	Drug ...	600	Raipur ...	350	Raipur ...	450
Raipur ...	620	Hoshangabad...	435	Wardha ...	580	Bilaspur ...	350	Bilaspur ...	450
		Betul ...	435	Nagpur ...	580	Drug ...	350	Drug ...	450
Bilaspur ...	620	Chhindwara ...	435	Balaghat ...	550				
Drng ...	620	Wardha ...	435	Bhandara ...	450				

TABLE XII—*contd.*

Central Provinces—*concld.*

Til or jinjli (sesamum)		Sugarcane (*gur*)		Linseed		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Wardha ...	300	Saugor ...	1,000	Wardha ...	300	Chhindwara ...	90
Nagpur ...	300			Saugor ...	280	Wardha ...	90
Chanda ..	300	Damoh ...	1,000	Narsingpur ...	280	Nagpur ...	90
Bhandara ...	300			Nagpur ...	280	Nimar ...	85
Balaghat ...	300	Jubbulpore ...	1,000	Jubbulpore ...	250	Chanda ...	80
Hoshangabad ...	250			Seoni ...	250	Narsingpur ...	70
Nimar ...	250	Narsingpur ...	1,000	Hoshangabad ...	250	Hoshangabad ...	70
Narsingpur ...	200			Chanda ...	250	Betul ...	70
Betul ..	180	Hoshangabad ...	1,000	Chhindwara ...	220	Jubbulpore ...	60
Chhindwara ...	180			Damoh ...	200	Saugor ...	55
Saugor ...	150	Raipur ...	1,000	Mandla ...	200	Damoh ...	55
Damoh ...	150			Nimar ..	200	Mandla ...	55
Jubbulpore ...	150	Bilaspur ...	1,000	Betul ...	200	Seoni ...	55
Mandla ...	150			Bhandara ...	200	Bhandara ...	45
Seoni ...	150	Drug ...	1,000	Balaghat ...	200	Balaghat ...	45
Raipur ...	150			Raipur ...	180	Raipur ...	45
Bilaspur ...	150			Bilaspur ...	180	Bilaspur ...	45
Drug ...	150			Drug ...	180	Drug ...	45

TABLE XII—*contd.*

Berar

Til or jinjili (sesamum)		Linseed		Cotton (cleaned)		Rice (husked) (broadcast)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Akola ...	300	Akola ...	330	Akola ...	90	Akola ...	435
Amraoti ...	300	Amraoti ...	330	Amraoti ..	90	Amraoti ...	435
Buldana ...	300	Buldana ...	330	Buldana ...	85	Buldana ...	435
Yeotmal ...	300	Yeotmal ...	330	Yeotmal ...	80	Yeotmal ...	435

Wheat		Jawar		Gram	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Akola	580	Akola	700	Akola	550
Amraoti	580	Amraoti	700	Amraoti	550
Buldana	580	Buldana	700	Buldana	550
Yeotmal	580	Yeotmal	700	Yeotmal	550

TABLE XII—*contd.*

Assam

Winter rice broadcast		Winter rice transplanted		Spring rice (*boro*)		Rape and mustard	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb per acre)
Khasi and Jaintia Hills	1,120*	Cachar ...	1,120	Sylhet ...	1,008	Goalpara ...	560
Sylhet ...	1,008*	Goalpara ...	1,120			Sibsagar ...	560
Cachar ...	672	Garo Hills...	1,120			Lakhimpur	560
Kamrup ...	672	Darrang ...	1,120			Kamrup ...	504
Garo Hills...	672	Nowgong ...	1,120			Darrang ...	504
Darrang ...	672	Kamrup ...	1,008			Nowgong ...	504
Nowgong ...	672	Lakhimpur	1,008			Sylhet ...	448
Sibsagar ...	672	Sibsagar...	896			Cachar ...	448
Lakhimpur	672						
Goalpara ...	560						

Sugarcane (*gur*)		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Sylhet ...	2,240	Garo Hills ...	200
Cachar ...	2,240	Sylhet ...	100
Lakhimpur ...	2,240	Khasi and Jantia Hills	100
Sibsagar ...	2,016	Nowgong ...	100
Darrang ...	1,456	Lushai Hill ...	100
Nowgong ...	1,456		
Goalpara ...	1,344		
Kamrup ...	1,344		

* N.B.—Represents winter rice both broadcast and transplanted.

TABLE XII—*contd.*

North-West Frontier Province

Wheat		Barley		Jawar		Bajra		Maize		Gram		Rape and mustard		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of Disrict	Average yield (lb per acre)	Name of District	Average yield (lb. per acre)
Peshawar ...	671	Peshawar ...	860	Peshawar ...	436	Dera Ismail Khan ...	508	Hazara...	741	Dera Ismail Khan ...	553	Peshawar...	455	Dera Ismail Khan ...	189
Dera Ismail Khan ...	561	Dera Ismail Khan ...	611			Kohat ...	507	Kohat ...	617	Kohat ...	453	Dera Ismail Khan ...	426	Hazara ...	57
Bannu ...	514	Hazara ...	535			Bannu ...	412			Bannu ...	412	Hazara ...	329	Kohat ...	57
Kohat ...	494	Kohat ...	535			Hazara ...	329					Bannu ...	288	Bannu ...	57
Hazara ...	473	Bannu ...	453									Kohat ...	247		

TABLE XII—*concld.*

Ajmer-Merwara

Barley		Jawar		Maize		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Merwara ...	801	Ajmer ...	185	Merwara ...	910	Ajmer ...	127
Ajmer ...	300	Merwara ...	90	Ajmer ...	760		

Coorg

Rice (husked)		Rice straw (bye-product)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Coorg	1,483	Coorg	2,428

Mysore State

Ragi		Horse gram		Til or jinjli (sesamum)		Cotton (cleaned)	
Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)	Name of District	Average yield (lb. per acre)
Banglore ...	792	Hassan ...	388	Kadur ...	301	Shimoga ...	118
Chitaldrug...	784	Kolar ...	388	Banglore ...	219	Chitaldrug	83
Kolar ...	703	Mysor ...	299	Mysore ...	209	Kadur ...	80
Hassan ...	703	Bangalore...	251	Chitaltaldrug	183	Mysore ...	71
Kadur ...	519	Shimoga ...	219	Shimoga ...	173	Tumkur ...	12
Shimoga ...	464	Kadur ...	218	Hassan ...	154		
Tumkur ...	441	Tumkur ...	159	Kolar ...	126		
Mysore ...	355	Chitaldurag	123	Tumkur ...	52		

TABLE XIII

Showing **Average yield** (lb. per acre) of each crop, for the year 1913-14.

N. B.—This table is worked out from table No. 1 and 14 of Estimates of Area and Yield of Principal crops in India, 1913-14.

Provinces and States for which estimates are available.

Name of crop	Total yield in thousands of tons	Total area in thousands of acres	Average yied (lb. per acre)	Remarks.
Rice (husked)	28,167	70,583	893	The estimates relate to Bengal, Bihar and Orissa, Madras, Burma, the United Provinces, Assam, Bombay Presidency (including Native States), Sind and Coorg.
Wheat ...	8,427	27,697	682	The estimates relate to the Punjab, the North-West Frontier Province, the United Provinces, Ajmer-Merwara, the Cental Provinces and Berar, Bombay, Sind, Bengal, Bihar and Orissa, Central India, Rajputana, Hyderabad (State) and Mysore (State).
Sugarcane ...	2,263	2,520	2,012	The estimates relate to the United Provinces, Bihar and Orissa, Bengal, Assam, the Punjab, the North-West Frontier Province, the Bombay Presidency (including Native States and Baroda)and Madras.
Tea ...	307, 250 thousand lbs.	610 ...	504	The estimates relate to Assam, Bengal, Madras, the United Provinces, the Punjab, Bihar and Orissa, Burma and Travancore (State).
Cotton (lint)	5,201 thousand bales (of 400 lbs. each)	24,595 ...	85	The estimates relate to all the cotton growing Provinces and States of India.

TABLE XIII—*contd.*

Name of Crop	Total yield in thousands of tons.	Total area in thousands of acres	Average yield (lb. per acre)	Remarks
Jute ...	8,894 thousand bales (of 400 lbs each.)	2,911	1,222	The estimates relate to Bengal, Bihar and Orissa and Assam.
Linseed ...	382	2,997	286	The estimates relate to the United Provinces, the Central Provinces and Berar, Bengal, Bihar and Orissa, the Punjab, the Bombay Presidency (including Native States), Hyderabad (State) and Baroda (State).
Rape and mustard	1 043	5,941	394	The estimates relate to the Punjab, Bengal, Bihar and Orissa, Assam, the United Provinces, the North-West Frontier Province, the Bombay Presidency (including Native States), Sind, Hyderabad (State) and Baroda (State).
Sesamum ...	408	5,119	179	The estimates relate to the Central Provinces and Berar, the Bombay Presidency (including Native States), Sind, Madras, the United Provinces, Bengal, Bihar and Orissa, the Punjab, Ajmer-Merwara, Hyderabad (State), and Baroda (State).
Groundnut ...	732	1,663	986	The estimates relate to Madras, Bombay (including Native States), and Burma.
Indigo ...	27 thousand cwts.	173	17	The estimates relate to Bihar and Orissa, Bengal, the United Provinces, the Punjab, Bombay, Sind, Madras, and the State of Khairpur in Sind.
Barley ..	714	1,648	970	The estimates relate to Bihar and Orissa, Bombay, Sind, and North-West Frontier Province.

TABLE XIII—concld.

Name of crop	Total yield in thousands of tons	Total area in thousands of acres	Average yield (lb per acre)	Remarks
Jawar ...	3,888	19,797	440	The estimates relate to the United Provinces, Madras, Bombay, Sind, Central Provinces and Berar, Burma, and North-West Frontier Province.
Bajra ...	1,710	11,895	322	The estimates relate to the United Provinces, Madras, Bombay, Sind, Burma and North-West Frontier Province.
Maize ...	1,620	4,613	787	The estimates relate to the United Provinces, Bihar and Orissa, Bombay, Sind, Burma, and North-West Frontier Province.
Gram ...	1,294	5,698	509	The estimates relate to the United Provinces, Bihar and Orissa, Bombay, Sind, Central Provinces and Berar, and North-West Frontier Province.

TABLE XIV

Showing the **total value** and **value of produce per head** of **total** and **rural** (80 per cent. of the total) **population** for the year 1913-14.

N.B.—This table is worked out from table No. I of Estimates of Area and Yield of Principal Crops in India 1913-14, and Census Report of India 1911, *Volume I, Part II.*

Provinces and States for which estimates are available

Name of crop	Total yield in thousands of tons	Average rate per maund	Total value of produce in thousands of rupees	Population in thousands (1911)		Value of produce per head of total population	Value of produce per head of Rural population	Remarks
				Total	Rural			
		Rs.	Rs.			Rs.	Rs.	
Rice (husked)	28,167	5 71	4,503,340	214,602	171,682	21·0	26·2	The estimates relate to Bengal, Bihar and Orissa, Madras, Burma, the United Provinces, Assam, Bombay (including Native States), Sind (including Native States) and Coorg.
Wheat ...	8,427	4·74	1,118,431	229,850	183,880	4·9	6·1	The estimates relate to the Punjab, the North-West Frontier Province, the United Provinces, Ajmer-Merwara, the Central Provinces, and Berar, Bombay (including Native States), Sind (including Native States), Bengal, Bihar and Orissa, Central India, Rajputana, Hyderabad and Mysore.

N. B.—The average rates per maund are those worked out from the rates of Provinces for 5 years.

TABLE XIV—*contd.*

Name of crop	Total yield in thousands of tons	Average rate per maund	Total value of produce in thousands of rupees	Population in thousands (1911)		Value of produce per head of total population	Value of produce per head of rural population	Remarks
				Total	Rural			
		Rs.	Rs.			Rs.	Rs.	
Barley ...	714	2·62	52,379	56,313	45,050	·9	1·2	The estimates relate to Bihar and Orissa, Bombay, Sind and North-West Frontier Province.
Jawar ...	3,888	3·22	350,542	136,441	109,153	2·6	3.2	The estimates relate to the United Provinces, Madras, Bombay, Sind, the Central Provinces and Berar, Burma and North-West Frontier Province.
Bajra ...	1,710	3·22	154,174	122,525	98,020	1·3	1.6	The estimates relate to the United Provinces, Madras', Bombay, Sind, Burma and North-West Frontier Province.
Maize ...	1,620	2·62	118,843	115,610	92,488	1·0	1·3	The estimates relate to the United Provinces, Bihar and Orissa, Bombay, Sind, Burma and North-West Frontier Province.
Gram ...	1,294	2·62	94,928	117,411	93,929	·8	1·0	The estimates relate to the United Provinces, Bihar and Orissa, Bombay, Sind, Central Provinces and Berar, and North-West Frontier Province.

Sugarcane ...	2,263	7·49	474,596	226,517	181,214	2·1	2·6	The estimates relate to the United Provinces, Bihar and Orissa, Bengal, Assam, the Punjab, the North-West Frontier Province, Bombay (including Native States), Madras, Baroda and Sind.
Tea ...	307,249,600 lbs.	38 17	146,596	210,793	168,334	·7	·9	The estimates relate to Assam, Bengal, Madras, the United Provinces, the Punjab, Bihar and Orissa, Burma and Travancore State.
Cotton ...	5,201,000 bales, of 400 lbs. each.,	19 50	507,098	296,861	237,189	1·7	2·1	The estimates relate to Bombay (including Native States), Central Provinces and Berar, Hyderabad State, Baroda, Madras, Punjab (including Native States). United Provinces (including the Native State of Rampur), Central India States, Rajputana, Sind (including Native States), Burma, Mysore, Bihar and Orissa, North-West Frontier, Province, Bengal, Ajmer-Merwara and Assam.
Jute ...	8,893,900 bales, (of 400 lbs. each.,)	5 70	253,476	87,280	69,824	2·9	3·6	The estimates relate to Bengal, Bihar and Orissa, Assam and Cooch Bihar State.
Linseed ...	382	5·76	61,609	199,979	159,983	·3	·4	The estimates relate to the Central Provinces and Berar, the United Provinces, Bihar and Orissa, Hyderabad, Bengal, Bombay (including Native States), Baroda and the Punjab.
Rape and mustard ...	1,043	6·50	189,826	198,487	158,790	1·0	1·2	The estimates relate to the United Provinces, the Punjab, Bengal, Bihar and Orissa, Assam, North-West Frontier Province, Bombay (including Native States), Baroda, Sind (including Native States) and Hyderabad.

TABLE XIV—*concld.*

Name of crop	Total yield in thousands of tons	Average rate per maund	Total value of produce in thousands of rupees	Population in thousands (1911)		Value of produce per head of total population	Value of produce per head of rural population	Remarks
				Total	Rural			
		Rs.	Rs.			Rs.	Rs.	
Sesamum ...	408	6·51	74,370	252,112	201,690	·3	·4	The estimates relate to the United Provinces, Bombay (including Native States), Baroda, Central Provinces and Berar, Madras, Hyderabad, State, Bengal, Bihar and Orissa, Punjab, Sind (including Native States), Ajmer-Merwara and Assam.
Groundnut ...	732	6·68	136,913	77,045	61,637	1·8	2·2	The estimates relate to Madras, Bombay (including Native States), and Burma.
Indigo ...	26,800 Cwts.	120·69	4,528	215,571	172,458	·02	·03	The estimates relate to Bihar and Orissa, Punjab, the United Provinces, Bombay and Sind Madras (including Native States) and Bengal.
TOTAL ...	...	...	8,241,649	...	...	43·32	54·03	

TABLE XV

Showing incidence of the land revenue Assessment per head of population, for the year 1912-13.

N. B. This table is worked out from heads 4, 5 and 6 of Table V, No. 36 of the Agricultural Statistics of India 1912-13, Volume II.

Native States

NATURE OF TENURE— **Raiyatwari**

Name of State	Total revenue from land (excluding cesses) in thousands of rupees	Population in thousands	Total revenue from land per head of population
			Rs. A. P.
Mysore	10,369	5,705	1 13 1
Barwani (Central India) ...	291	109	2 10 11
Tonk (Rajputana)	1,041	234	4 7 4
Narsingarh (Central India) ...	394	84	4 11 3
Kotah (Rajputana)	2,656	545	4 14 0
Rajgarh (Central India) ...	696	127	5 7 5

Name of State and nature of tenure	Total revenue from land (excluding cesses) in thousands of rupees	Population in thousands	Total revenue from land per head of population
			Rs. A. P.
Alwar (Rajputana) (Zamindari and village communities) ...	2,430	674	3 9 7
Gwalior (Central India) (Zamindari)	9,096	2,521	3 9 9
Bharatpur (Rajputana) (Raiyatwari and Zamindari)	2,428	559	4 5 7
Jhalawar (Rajputana) (Raiyatwari and Zamindari)	402	77	5 3 1

Name of State (nature of tenure not specified)	Total revenue from land (excluding cesses) in thousands of rupees	Population in thousands	Total revenue from land per head of population
			Rs. A. P.
Cochin (Madras)	1,038	918	1 2 1
Bikaner (Rajputana) ...	1,151	701	1 10 3
Marwar (Rajputana) ...	1,198	411	2 14 7
Indore (Central India) ...	5,443	1,008	5 4 10
Jaipur (Rajputana) ...	3,878	754	5 14 4
Bhopal (Central India) ...	3,294	543	6 1 1

TABLE XVI

Showing **incidence of land revenue assessment** per head of population, for the year 1912-13.

N. B. This table is worked out from heads 4, 5 and 6 of Table V, No. 73 of the Agricultural Statistics of India 1912-13, Volume I.

Provincial ***British Territory***

NATURE OF TENURE—***Raiyatwari.***

Name of Province	Total revenue from land (excluding cesses) in thousands of rupees	Population in thousands	Total revenue from land per head of population
			Rs. A. P.
Madras	56,177	27,216	2 1 0
Coorg	365	175	2 1 4
Manpur (Central India) ...	16	7	2 5 9
Sind	8,961	3,513	2 9 5
Berar	8,618	3,057	2 13 2
Upper Burma	15,526	4,113	3 12 5
Lower Burma	31,158	6,462	4 13 3
NATURE OF TENURE—***Zamindari*** (permanently settled).			
Ajmer-Merwara	114	188	0 9 9
Madras	6,622	8,501	0 12 6
Agra	4,591	4,866	0 15 1
Oudh	908	736	1 3 9
NATURE OF TENURE—***Zamindari*** (temporarily settled).			
North-West Frontier ...	2,576	2,255	1 2 3
Punjab	36,356	19,548	1 13 9
NATURE OF TENURE—***Zamindari and village communities*** (temporarily settled).			
Ajmer-Merwara	316	289	1 1 6
Oudh	16,950	12,059	1 6 6
Agra	43,320	29,528	1 7 6

TABLE XVI—*concld.*

NATURE OF TENURE—***Raiyatwari, Zamindari*** (permanently settled), ***Zamindari*** (temporarily settled) ***whole inam villages, Zamindari and village communities*** (temporarily settled) ***and miscellaneous revenue.***

Name of Province	Total revenue from land (excluding cesses) in thousands of rupees	Population in thousands	Total revenue from land per head of population.
			Rs. A. P.
Bihar and Orissa	15,713	34,490	0 7 3
Bengal	27,467	44,588	0 9 10
Ajmer-Merwara	362	501	0 11 7
Central Provinces	10,148	10,865	0 14 11
Assam	7,798	6,714	1 2 7
United Provinces	65,768	47,190	1 6 3
Madras	63,958	38,209	1 10 9
Bombay	30,928	15,134	2 0 8
Berar	8,656	3,059	2 13 3

TABLE XVII.

Showing **incidence of the land revenue assessment** per head of population.

N. B.—This table is worked out from columns 5, 6 and 7 of Table V, No. 74 of the Agricultural Statistics of India 1912-13 Volume I.

By Districts — **British Territory**

Bengal, for the year 1912-13.

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population
			Rs. a. p.
Dacca ... Zamindari (P. S.)* ...	424	2,960	0 2 10
,, (T. S.)† ...	100		
Misc. revenue ...	3		
Maimensingh ... Zamindari (P. S.) ...	769	4,526	0 3 2
,, (T. S.) ...	111		
Misc. revenue ...	4		
Pabna ... Zamindari (P. S.) ...	384	1,429	0 4 8
,, (T. S.) ...	34		
Misc. revenue ...	3		
Faridpur ... Zamindari (P. S.) ...	496	2,122	0 4 11
,, (T. S.) ...	145		
Misc. revenue ...	9		
Rangpur ... Zamindari (P. S.) ..	1,012	2,385	0 6 9
,, (T. S.) ...	4		
Misc. revenue ...	·69		
Bankura ... Zamindari (P. S.) ...	486	1,139	0 6 11
,, (T. S.) ...	6		
Misc. revenue ...	4		
Malda ... Zamindari (P. S.) ...	420	1,004	0 7 1
,, (T. S.)	26		
Misc. revenue ...	1		
Tippera ... Zamindari (P. S.) ...	939	2,430	0 7 2
,, (T. S.) ...	159		
Misc. revenue ...	·23		

*Permanently settled.
†Temporarily settled.

TABLE XVII—*contd.*

Bengal—*contd.*

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population
			Rs. a. p.
Chittagong Hill Tracts — Zamindari (T. S.) ...	49	154	0 7 8
Chittagong Hill Tracts — Misc. revenue ...	25		
Jessore ... Zamindari (P. S.) ...	858	1,758	0 7 10
Jessore ... „ (T. S.) ...	10		
Bogra ... Zamindari (P. S.) ...	434	984	0 8 1
Bogra ... „ (T. S.) ...	63		
Bogra ... Misc. revenue ...	4		
Khulna ... Zamindari (P. S.) ...	521	1,367	0 8 10
Khulna ... „ (T. S.) ...	236		
Khulna ... Misc. revenue ...	·24		
Nadia ... Zamindari (P. S.) ..	810	1,618	0 8 11
Nadia ... „ (T. S.) ...	90		
Nadia ... Misc. revenue ...	3		
Noakha'i ... Zamindari (P. S.) ...	465	1,303	0 9 5
Noakha'i ... „ (T. S.) ...	300		
Noakha'i ... Misc. revenue ...	·48		
Hooghly (including Howrah) — Zamindari (P. S) ...	1,308	2,034	0 10 11
Hooghly (including Howrah) — „ (T. S) ...	64		
Hooghly (including Howrah) — Misc. revenue ...	17		
Rajshahi ... Zamindari (P. S.) ...	1,022	1,481	0 11 3
Rajshahi ... „ (T. S.) ...	9		
Rajshahi ... Misc. revenue ...	3		
24-Parganas ... Zamindari (P. S.) ...	1,264	2,434	0 12 1
24-Parganas ... „ (T. S.) ...	536		
24-Parganas ... Misc. revenue ...	36		
Murshidabad ... Zamindari (P. S.) ...	1,021	1,372	0 12 10
Murshidabad ... „ (T. S.) ...	51		
Murshidabad ... Misc. revenue ...	35		

TABLE XVII—*contd.*

Bengal—*concld.*

Name of District and nature of tenure		Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population
				Rs. A. P.
Darjeeling ...	Zamindari (P. S.) ...	2	266	0 13 0
	,, (T. S.) ...	194		
	Misc. revenue ...	18		
Backerganj ...	Zamindari (P. S.) ...	1,231	2,429	0 13 6
	,, (T. S.) ...	817		
	Misc. revenue ...	4		
Chittagong ...	Zamindari (P. S.) ...	529	1,508	0 14 6
	,, (T. S.) ...	763		
	Misc. revenue ...	25		
Dinajpur ...	Zamindari (P. S.) ..	1,519	1,688	0 14 5
	,, (T. S.) ..	165		
	Misc. revenue ...	3		
Midnapur ...	Zamindari (P. S.) ...	2,415	2,821	0 14 9
	,, (T. S.) ..	146		
	Misc. revenue ...	12		
Jalpaiguri ...	Zamindari (P. S.) ...	137	903	0 14 11
	,, (T. S.) ...	674		
	Misc. revenue ...	30		
Birbhum ...	Zamindari (P. S.) ...	1,006	935	1 2 0
	,, (T. S.) ...	3		
	Misc. revenue ...	17		
Bardwan ...	Zamindari (P. S.) ...	3,039	1,538	2 0 5
	,, (T. S.) ...	20		
	Misc. revenue ...	59		

TABLE XVII—*contd.*

Madras for the year 1908-09

NATURE OF TENURE—***Raiyatwari***

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population
			Rs. a. p.
Anjengo	3	5	0 9 4
Nilgiris	130	113	1 2 4
Malabar	3,224	2,785	1 2 6
Anantapur	992	762	1 4 10
Ganjam	1,083	828	1 4 11
Coimbatore	3,087	2,122	1 7 3
Salem	2,170	1,484	1 7 5
Cuddapah	1,962	1,235	1 9 5
North Arcot	2,272	1,403	1 9 11
Tinnevelly	2,639	1,470	1 12 9
South Canara	2,067	1,135	1 13 2
Vizagapatam	536	289	1 13 8
Trichinopoly	2,165	1,159	1 13 11
Bellary	1,791	920	1 15 2
Chingleput	1,376	954	1 15 6
Madura	2,453	1,234	1 15 10
South Arcot	4,559	2,253	2 0 4
Karnul	1,769	852	2 1 3
Tanjore	5,922	1,807	3 4 5
Nellore	2,555	741	3 6 4
Godavari	2,972	802	3 11 4
Guntur	5,264	1,371	3 13 5
Kistna	4,635	983	4 11 5
Nature of tenure—***Zamindari***			
Trichinopoly	52	203	0 4 1
Tanjore	31	98	0 5 2
South Arcot	9	26	0 5 5
Vizagapatam	978	2,264	0 6 11
North Arcot	363	763	0 7 7
Ganjam	474	959	0 7 11
Coimbatore	28	54	0 8 4
Madura	789	1,171	0 10 9

TABLE XVII—*contd.*

Madras—concld.

NATURE OF TENURE—***Zamindari***—*contd.*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population
			Rs. a. p.
Salem	452	639	0 11 4
Chingleput	156	217	0 11 6
Tinnevelly	324	446	0 11 7
Guntur	45	46	0 15 7
Nellore	416	392	1 1 0
Malabar	11	10	1 1 9
Godavari	920	607	1 8 3
Kistna	1,573	602	2 9 9
NATURE OF TENURE—***Whole inam villages***			
Coimbatore	4	24	0 2 7
Madras { Raiyatwari ... / Whole inam villages }	93	509	0 2 11
Vizagapatam	77	380	0 3 3
Trichinopoly	19	81	0 3 11
Ganjam	55	223	0 4 0
Madura	132	427	0 4 11
Tinnevelly	56	143	0 6 3
South Arcot	29	71	0 6 8
Chingleput	70	142	0 7 11
Tanjore	174	340	0 8 2
Anantapur	14	26	0 8 8
Salem	46	82	0 9 0
Bellary	16	27	0 9 3
North Arcot	26	41	0 10 2
Nellore	91	140	0 10 4
Karnul	14	20	0 11 2
Kistna	146	158	0 14 9
Cuddapah	54	57	0 15 4
Godavari	44	37	1 2 10
Guntur	90	73	1 3 9

TABLE XVII—*contd*

Bombay, for the year 1911-12

Nature of tenure—*Raiyatwari, Zamindari and village communities (temporarily settled)*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Ratnagiri ...	895	1,204	0	11	11
Panch Mahals ...	351	323	1	1	5
Tanna ...	1,508	882	1	11	4
Ahmadabad ...	1,442	828	1	11	10
Kolaba ...	1,341	594	2	4	1
Kaira ...	1,821	692	2	10	1
Broach ...	2,074	307	6	12	2

Nature of tenure—*Raiyatwari*

Poona ...	1,366	1,072	1	4	5
Belgaum ...	1,580	944	1	10	9
Sholapur ...	1,291	768	1	10	11
Bijapur ...	1,455	863	1	10	11
Ahmadnagar ...	1,640	945	1	11	9
Nasik ...	1,584	905	1	12	0
Satara ...	1,945	1,081	1	12	9
Kanra ...	988	431	2	4	8
Dharwar ...	2,726	1,026	2	10	6
Khandesh ...	4,626	1,616	2	14	0
Surat ...	2,296	654	3	8	2

Sind, for the year 1911-12

Nature of tenure—*Raiyatwari*

Karachi ...	714	522	1	5	11
Sukkur ...	899	574	1	9	1
Hyderabad ...	2,767	1,037	2	10	8
Upper Sind Frontier ...	704	263	2	10	10
Thar and Parkar ...	1,617	457	3	8	7
Larkana ...	2,390	661	3	9	10

TABLE XVII—*contd.*

North-West Frontier Province, for the year 1912-13

Nature of tenure—*Zamindari and village communities (temporarily settled)*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Hazara ...	446	575	0	12	5
Dera Ismail Khan ...	287	256	1	1	11
Kohat ...	253	223	1	2	2
Kurrum ...	71	61	1	2	6
Peshawar ...	1,132	865	1	4	11
Tochi ...	33	25	1	5	3
Bannu ...	255	250	1	6	9

Province of Agra, for the year 1911-12

Nature of tenure—*Zamindari and village communities (temporarily settled)*

Garhwal ...	151	480	0	5	0
Almora ...	261	466	0	9	0
Naini Tal ...	187	341	0	9	7
Dehra Dun ...	128	178	0	11	6
Jhansi ...	568	681	0	13	4
Gorakhpur ...	2,641	2,939	0	14	5
Basti ...	1,996	1,830	1	1	5
Shahjahanpur ...	1,191	946	1	4	2
Azamgarh ...	1,884	1,492	1	4	2
Budaun ...	1,369	1,025	1	5	4
Farukhabad ...	1,238	900	1	6	0
Bareli ...	1,526	1,090	1	6	5
Etah ...	1,239	864	1	6	11
Moradabad ...	1,736	1,192	1	7	4
Saharanpur ..	1,540	1,045	1	7	7
Pilibit ...	718	470	1	8	5
Banda ...	977	631	1	8	9
Allahabad ...	2,379	1,467	1	9	11
Mainpuri ...	1,377	829	1	10	7
Bulandshahr ...	1,972	1,138	1	11	9
Etawah ...	1,329	760	1	12	0

TABLE XVII—*contd.*

Province of Agra—*concld.*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A	P.
Agra ...	1,859	1,061	1	12	1
Cawnpore ...	2,019	1,142	1	12	3
Muzaffarnagar ...	1,565	877	1	12	7
Hamirpur ...	841	459	1	13	4
Bijnor ...	1,473	780	1	14	3
Meerut ...	2,938	1,540	1	14	6
Fatehpur ...	1,303	677	1	14	10
Jalaun ...	827	400	2	1	1
Aligarh ...	2,494	1,201	2	1	3
Muttra ...	1,592	656	2	6	10
Nature of tenure—*Zamindari* (*permanently settled*)					
Mirzapur ...	671	1,071	0	10	0
Ballia ...	678	845	0	12	10
Azamgarh ...	55	56	0	15	7
Benares ...	899	897	1	0	0
Jaunpur ...	1,246	1,156	1	1	3
Ghazipur ...	1,042	840	1	3	10

Province of Oudh, for the year 1911—12.

Nature of tenure—*Zamindari and village communities* (*temporarily settled.*)

Kheri ...	1,027	905	1	2	2
Lucknow ...	858	751	1	2	4
Fyzabad ...	1,439	1,205	1	3	1
Gonda ...	1,304	1,069	1	3	6
Sultanpur ...	1,493	1,084	1	6	1
Bahraich ...	1,187	847	1	6	5
Sitapur ...	1,679	1,175	1	6	10
Partabgarh ...	1,322	913	1	7	2
Hardoi ...	1,590	1,061	1	8	0
Rae Bareli ...	1,558	1,017	1	8	6
Unao ...	1,477	879	1	10	11
Barabanki ...	2,015	1,153	1	11	11

TABLE XVII—*contd.*

Province of Oudh*—*concld.

Nature of tenure—*Zamindari (permanently settled)*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Barabanki ...	12	26	0	7	8
Lucknow ...	53	43	1	3	9
Gonda ...	417	335	1	3	11
Bahraich ...	256	204	1	4	1
Unao ...	126	98	1	4	8
Hardoi ...	43	32	1	5	11

***Ajmer-Merwara*, for the year 1910—11.**

Nature of tenure—*Zamindari (permanently settled) and Zamindari and village communities (temporarily settled.)*

Ajmer ...	259	380	0	10	11
Merwara ...	102	121	0	13	6

***Bihar and Orissa*, for the year 1911-12.**

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
Manbhum { Zamindari (permanently settled)	79	1,548	0	0	10
Manbhum { Zamindari (temporarily settled)	2				
Manbhum { Miscellaneous revenue	3				
Hazaribagh { Zamindari (permanently settled)	47	1,289	0	2	3
Hazaribagh { Zamindari (temporarily settled)	131				
Hazaribagh { Miscellaneous revenue	5				

TABLE XVII—*contd.*

Bihar and Orissa—contd.

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	P.	A.
Pelamau — Zamindari (permanently settled)	25	687	0	3	3
Pelamau — Zamindari (temporarily settled)	87				
Pelamau — Miscellaneous revenue	28				
Singhbhum — Zamindari (permanently settled)	4	694	0	3	4
Singhbhum — Zamindari (temporarily settled)	137				
Singhbhum — Miscellaneous revenue	6				
Ranchi — Zamindari (permanently settled)	14	1,388	0	3	7
Ranchi — Zamindari (temporarily settled)	29				
Ranchi — Miscellaneous revenue	270				
Santhal parganas — Zamindari (permanently settled)	117	1,883	0	4	1
Santhal parganas — Zamindari (temporarily settled)	308				
Santhal parganas — Miscellaneous revenue	51				
Darbhanga — Zamindari (permanently settled)	785	2,930	0	4	4
Darbhanga — Zamindari (temporarily settled)	4				
Darbhanga — Miscellaneous revenue	4				
Champaran — Zamindari (permanently settled)	514	1,908	0	4	4
Champaran — Zamindari (temporarily settled)	·57				
Champaran — Miscellaneous revenue	·92				
Sambalpur — Zamindari (temporarily settled)	199	744	0	4	4
Sambalpur — Miscellaneous revenue	5				

TABLE XVII—*contd.*

Bihar and Orissa,—*contd.*

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Bhagalpur — Zamindari (permanently settled)	569	2,139	0	4	11
Bhagalpur — Zamindari (temporarily settled)	39				
Bhagalpur — Miscellaneous revenue	50				
Muzaffarpur — Zamindari (permanently settled)	961	2,846	0	5	6
Muzaffarpur — Zamindari (temporarily settled)	20				
Muzaffarpur — Miscellaneous revenue	3				
Monghyr — Zamindari (permanently settled)	776	2,133	0	7	3
Monghyr — Zamindari (temporarily settled)	67				
Monghyr — Miscellaneous revenue	18				
Saran — Zamindari (permanently settled)	1,233	2,290	0	8	10
Saran — Zamindari (temporarily settled)	39				
Saran — Miscellaneous revenue	2				
Purnea — Zamindari (permanently settled)	1,173	1,990	0	9	6
Purnea — Zamindari (temporarily settled)	12				
Purnea — Miscellaneous revenue	2				
Cuttack — Zamindari (permanently settled)	100	2,109	0	9	6
Cuttack — Zamindari (temporarily settled)	1,148				
Cuttack — Miscellaneous revenue	7				

TABLE XVII—*contd.*

Bihar and Orissa—*concld.*

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Angul — Zamindari (permanently settled)	...	199	0	10	0
Angul — Zamindari (temporarily settled)	100				
Angul — Miscellaneous revenue	25				
Balasore — Zamindari (permanently settled)	42	1,056	0	10	3
Balasore — Zamindari (temporarily settled)	638				
Balasore — Miscellaneous revenue	·59				
Gaya — Zamindari (permanently settled)	1,358	2,159	0	10	11
Gaya — Zamindari (temporarily settled)	124				
Gaya — Miscellaneous revenue	·45				
Puri — Zamindari (permanently settled)	3	1,023	0	11	0
Puri — Zamindari (temporarily settled)	702				
Puri — Miscellaneous revenue	2				
Shahabad — Zamindari (permanently settled)	1,505	1,866	0	15	5
Shahabad — Zamindari (temporarily settled)	274				
Shahabad — Miscellaneous revenue	19				
Patna — Zamindari (permanently settled)	1,417	1,610	1	1	4
Patna — Zamindari (temporarily settled)	108				
Patna — Miscellaneous revenue	221				

TABLE XVII—*contd.*

Punjab, for the year 1912-13

Nature of tenure—*Zamindari* (*temporarily settled*)

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Simla ...	18	39	0	7	2
Montgomery ...	519	501	1	0	7
Dera Ghazi Khan ...	530	500	1	0	11
Rawalpindi ...	643	548	1	2	9
Gujrat ...	897	746	1	3	3
Lahore ...	1,278	1,039	1	3	8
Mianwali ...	419	341	1	3	8
Kangra ...	954	770	1	3	10
Hissar ...	1,009	805	1	4	1
Attock ...	673	519	1	4	9
Ferozpur ...	1,313	960	1	5	11
Jhelum ...	755	512	1	7	7
Sialkot ...	1,483	980	1	8	3
Hoshiarpur ...	1,448	919	1	9	3
Amritsar ...	1 438	881	1	10	2
Karnal ...	1,314	800	1	10	4
Muzaffargarh ...	939	569	1	10	4
Ambala ...	1,148	690	1	10	7
Multan ...	1,393	815	1	11	4
Jalandhar ...	1,481	802	1	13	7
Gurdaspur ...	1,813	837	2	2	8
Gurgaon ...	1,597	729	2	3	1
Rohtak ...	1,575	715	2	3	3
Gujranwala ...	8,317	923	2	8	2
Jhang ...	1,358	516	2	10	2
Ludhiana ...	1,381	517	2	10	9
Shahpur ...	2,186	687	3	2	11
Lyallpur ...	4,479	890	5	0	6

TABLE XVII—*contd.*

Upper Burma, for the year 1912-13

Nature of tenure—*Raiyatwari*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Pakôkku Hill Tracts ...	4	17	0	3	8
Bhamo ...	223	108	2	1	3
Myitkyina ...	183	86	2	2	2
Lower Chindwin ...	710	316	2	3	11
Yaméthin ...	834	307	2	11	6
Pakôkku ...	1,162	410	2	13	5
Katha ...	562	198	2	13	7
Sagaing ...	890	312	2	13	9
Upper Chindwin ...	493	171	2	14	4
Meiktila ...	839	280	3	0	0
Myingyan ...	1,526	442	3	7	3
Mandalay ...	1,303	341	3	13	2
Minbu ...	1,099	264	4	2	9
Shwebo ...	1,491	356	4	3	0
Kyauksé ...	1,005	141	7	1	10
Magwe ...	2,773	317	8	12	0
Ruby Mines ...	432	47	9	8	6

Lower Burma, for the year 1912-13

Nature of tenure—*Raiyatwari*

Rangoon Town ...	43	293	0	2	5
Northern Arakan ...	14	22	0	9	11
Salween ...	53	47	1	2	5
Sandoway ...	224	103	2	3	0
Thayetmyo ...	571	248	2	4	8
Prome ...	961	379	2	8	8
Kyaukpyu ...	488	185	2	10	3
Amherst ...	1,234	368	3	5	9
Toungoo ...	1,279	351	3	10	4
Henzada ...	2,182	532	4	1	7
Tharawady ...	1,804	434	4	2	7
Tavoy ...	570	135	4	3	7
Thatôn ...	1,919	417	4	9	9
Akyab ...	2,552	530	4	13	2
Mergui ...	541	111	4	13	9

TABLE XVII—*contd.*

Lower Burma—*concld.*

Name of District	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Bassein ...	2,343	441	5	5	1
Insein ...	1,438	265	5	6	10
Pegu ...	2,573	364	7	1	3
Myaungmya ...	2,491	335	7	7	2
Ma-ubin ...	2 307	305	7	9	1
Pyapon ...	2,359	256	9	3	5
Hanthawaddy ...	3,211	340	9	7	4

Central Provinces, for the year 1912-13

Nature of tenure—*Raiyatwari and Zamindari (temporarily settled)*

Bilaspur ...	609	1,146	0	8	6
Chanda ...	368	678	0	8	8
Raipur ...	775	1,325	0	9	4
Chhindwara ...	310	517	0	9	7
Seoni ...	249	395	0	10	1
Mandla ...	270	405	0	10	8
Betul ...	286	390	0	11	9
Balaghat ...	288	390	0	11	10
Bhandara ...	604	774	0	12	6
Drug ...	670	776	0	13	10
Nimar ...	408	391	1	0	8
Saugor ...	569	541	1	0	10
Nagpur ...	1,063	815	1	4	10
Damoh ...	462	333	1	6	3
Jubbulpore ...	1,053	746	1	6	7
Hoshangabad ...	690	457	1	8	2
Wardha ...	840	460	1	13	3
Narsinghpur ...	633	326	1	15	1

Berar, for the year 1912-13

Nature of tenure—*Raiyatwari*

Yeotmal ...	1,157	723	1	9	7
Buldana ...	2,018	669	3	0	3
Amraoti ...	2,878	876	3	4	7
Akola ...	2,603	791	3	4	8

TABLE XVII—*concld.*

Assam, for the year 1912 13

Name of District and nature of tenure	Total revenue from land (excluding cesses) of district in thousands of rupees	Population of district in thousands	Total revenue from land per head of population		
			Rs.	A.	P.
Goalpara — Raiyatwari ...	116	601	0	4	2
Goalpara — Zamindari (temporarily settled) ...	29				
Goalpara — Zamindari permanently settled ...	11				
Khasi and Jaintia Hills — Raiyatwari ...	65	235	0	4	4
Khasi and Jaintia Hills — Zamindari (temporarily settled) ...	·10				
Lushai Hills (Raiyatwari) ...	32	91	0	5	7
Sylhet — Raiyatwari ...	462	2,473	0	6	7
Sylhet — Zamindari (temporarily settled) ...	198				
Sylhet — Zamindari (permanently settled) ...	365				
Naga Hills (Raiyatwari) ...	87	150	0	9	3
Garo Hills — Raiyatwari ...	137	159	0	14	6
Garo Hills — Zamindari (temporarily settled) ...	1				
Garo Hills — Zamindari (permanently settled) ...	·01				
Cachar — Raiyatwari ...	587	497	1	2	11
Cachar — Zamindari (temporarily settled) ...	3				
Nowgong — Raiyatwari ...	563	304	1	15	4
Nowgong — Zamindari (temporarily settled) ...	31				
Kamrup — Raiyatwari ...	1,317	668	2	2	9
Kamrup — Zamindari (temporarily settled) ...	133				
Lakhimpur — Raiyatwari ...	959	469	2	3	6
Lakhimpur — Zamindari (temporarily settled) ...	82				
Darrang — Raiyatwari ...	762	377	2	3	9
Darrang — Zamindari (temporarily settled) ...	82				
Sibsagar — Raiyatwari ...	1,685	690	2	9	2
Sibsagar — Zamindari (temporarily settled) ...	91				

TABLE XVIII

Showing the **number of acres to a plough,** for the year 1912-13.

N. B. This table is worked out from Table II, No. 7, column 6, and Table IV, No. 27, column 12, of the Agricultural Statistics of India 1912-13, Volume II.

Native States

Name of State	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Kishangarh	58	9	6·44
Mysore	6,319	829	7·62
Bikaner	554	58	9·55
Cochin	476	48	9·92
Gwalior	4,165	365	11·41
Jhalawar	88	7	12·57
Rajgarh	202	16	12·63
Tonk	344	27	12·74
Jaipur	831	63	13·19
Bharatpur	760	55	13·82
Barwani	228	16	14·25
Alwar	865	55	15·73
Narsingarh	130	8	16·25
Nagod	130	8	16·25
Indore	1,910	108	17·69
Kotah	999	55	18·16
Marwar	820	44	18·64
Bhopal	1,634	76	21·50

TABLE XIX

Showing the **number of acres to a plough,** for the year 1908-09 and 1909-10.

N.B.—This table is worked out from Table II No. 25, column 6, and Table IV No. 57, column 12 of the Agricultural Statistics of India 1912-13, Volume I.

Provincial ***British Territory***

Name of Province	Total area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Coorg ...	139	33	4·21
Oudh ...	9,141	1,559	5·86
Pargana Manpur (C. India) ...	7	1	7·00
Agra ...	26,748	3,389	7·89
Madras ...	32,217	3,896	8·27
Bihar and Orissa ...	23,475	2,668	8·80
Ajmer-Merwara ...	427	39	10·95
North-West Frontier ...	2,439	215	11·35
Punjab ...	25,821	2,170	11·81
Assam ...	5,582	459	12·16
Sind ...	3,815	275	13·87
Central Provinces ...	16,700	1,112	15·02
Bombay ...	25,353	1,012	25·05
Lower Burma ...	8,587	315	27·26
Upper Burma ...	5,065	152	33·32
Berar ...	7,317	120	60·98

TABLE XX

Showing the number of acres to a plough

N.B.—This table is worked out from Table II, No. 26-40, column 6, and Table IV, No. 58-72, column 12 of the Agricultural Statistics of India 1912-13, Volume I.

By Districts — **British Territory**

Bengal, for the year 1910-11

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Hooghly ...	399	113	3·53
Jessore ...	1,105	266	4·15
Khulna ...	874	200	4·37
Bankura ...	563	126	4·47
Midnapur ...	1,882	400	4·70
Nadia ...	662	140	4·73
Howrah ...	201	39	5·15
Murshidabad ...	581	111	5·23
24-Parganas ...	1,630	194	5·31
Bardwan ...	906	158	5·73
Birbhum ...	782	125	6·26
Backerganj ...	1,673	141	11·87
Darjeeling ...	172	14	12·29

Madras, for the year 1909-10.

South Canara ...	501	269	1·86
North Arcot ...	1,130	370	3·05
South Arcot ...	1,552	298	5·21
Vizagapatam ...	1,939	352	5·51
Chingleput ...	741	133	5·57
Salem ...	1,856	287	6 47
Trichinopo'y ...	1,130	173	6 53
Godavari ...	990	147	6 73
Tanjore ...	1,357	192	7·07
Coimbatore ...	2,267	305	7·43
Malabar ...	1,269	169	7·51
Madura ...	1,441	181	7·96
Kistna ...	1,695	194	8·74
Nellore ...	1,061	115	9·23

TABLE XX—*contd.*

Madras,—*concld.*

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Cuddapah ...	1,454	122	11·92
Tinnevelly ...	1,312	106	12·38
Guntur ...	1,794	121	14·83
Nilgiris ...	68	4	17·00
Ganjam ...	1,820	100	18·20
Anantapur ...	1,643	78	21·06
Karnul ...	1,958	77	25·43
Bellary ...	2,399	78	30·76
Ramnad ...	1,044	26	40·15
Bombay, for the year 1909-10			
Kanra ...	224	54	4·15
Tanna ...	448	80	5·60
Kolaba ...	375	57	6·58
Panch Mahals ...	406	49	8·29
Ratnagiri ...	579	60	9·65
Surat ...	490	46	10·65
Kaira ...	677	47	14·40
Broach ...	565	24	23·54
Dharwar ...	2,145	85	25·24
Belgaum ...	1,700	67	25·37
Nasik ...	2,026	79	25·65
Ahmadabad ...	1,229	45	27·31
Khandesh ...	3,378	105	32·17
Satara ...	1,575	45	35·00
Poona ...	1,846	52	35·50
Bijapur ...	2,880	54	53·33
Ahmadnagar ...	2,803	45	62·29
Sholapur ...	2,008	19	105·68
Sind, for the year 1909-10			
Sukkur ...	409	45	9·09
Larkana ...	657	60	10·95
Hyderabad ...	1,017	85	11·96
Karachi ...	366	19	19·26
Upper Sind Frontier ...	448	23	19·48
Thar and Parkar ...	919	43	21·37

TABLE XX—*contd.*

Oudh, for the year 1908-09.

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Partabgarh ...	511	127	4·02
Sultanpur ...	621	142	4·37
Rae-Bareli ...	605	134	4·51
Fyzabad ...	689	143	4·82
Lucknow .	370	61	6·07
Unao ...	645	106	6·08
Gonda ...	1,144	180	6·36
Barabanki ...	744	113	6·58
Hardoi ...	967	142	6·81
Sitapur ...	1,015	148	6·86
Kheri ...	874	125	6·99
Bahraich ...	956	135	7·08

Agra, for the year 1908-09

Azamgarh ...	834	188	4·44
Jaunpur ...	613	135	4·54
Basti ...	1,256	230	5·46
Dehra-Dun ...	102	17	6·00
Allahabad ...	1,022	160	6·39
Benares ...	467	71	6·58
Pilibit ..	419	61	6·87
Gorakhpur ...	2,127	309	6·88
Ghazipur ...	593	84	7·06
Mirzapur ...	875	123	7·11
Bareli ...	790	110	7·18
Fatehpur ...	562	78	7·21
Farukhabad ...	666	89	7·48
Shahjahanpur ...	780	104	7·50
Etawah ...	544	70	7·77
Naini-Tal ...	273	35	7·80
Moradabad ...	1,098	137	8·01
Mainpuri ...	587	72	8·15
Bijnor ...	679	83	8·18
Cawnpore ...	824	99	8·32
Etah ...	720	81	8·88
Ballia ...	536	59	9·08

TABLE XX—*contd.*

Agra,—*concld.*

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Jhansi ...	759	83	9·14
Budaun ...	994	105	9·47
Saharanpur ...	863	87	9·92
Bulandshahr ...	902	85	10·61
Meerut ...	1,116	103	10·83
Agra ...	797	72	11·07
Muzaffargarh ...	730	64	11·41
Aligarh ...	918	78	11·77
Banda ...	872	71	12·28
Hamirpur ...	674	49	13·76
Muttra ...	684	43	15·91
Jalaun ...	515	30	17·17

Bihar and Orissa, for the year 1912-13

Cuttack ...	1 241	329	3·77
Balasore ...	898	188	4·78
Santhal Parganas ...	1,655	249	6·65
Palamau ...	510	74	6·89
Sambalpur ...	913	126	7·25
Angul ...	244	33	7·39
Singhbhum ...	709	95	7·46
Hazaribagh ...	1,292	151	8·56
Puri ...	751	76	9·88
Patna ...	1,059	106	9·99
Purnea ...	1,888	177	10·67
Monghyr ...	1,470	135	10·89
Ranchi ...	2,314	210	11·03
Bhagalpur ...	1,638	145	11·30
Gaya ...	1,736	149	11·65
Shahabad ...	1,784	150	11·89
Saran ...	1,307	108	12·10
Darbhanga ...	1,502	110	13·65
Champaran ...	1,289	89	14·48
Manbhum ...	1,494	102	14·65
Muzaffarpur ...	1,430	85	16·82

TABLE XX—*contd.*

Punjab, for the year 1908-09

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Simla ...	10	3	3·33
Kangra ...	520	127	4·09
Hoshiarpur ...	703	92	7·64
Sialkot ...	847	104	8·14
Rawalpindi ...	543	66	8·23
Muzaffargarh ...	655	79	8·29
Jalandhar ..	659	79	8·34
Gurdaspur ...	782	86	9·09
Gujrat ...	762	80	9·53
Multan ...	944	98	9·63
Montgomery ...	756	73	10 36
Amritsar ...	721	69	10·45
Ambala ...	712	67	10 63
Jhang ...	649	61	10·64
Jhelum ...	688	64	10·75
Mianwali ...	537	47	11·43
Gujranwala ...	1,023	89	11·49
Lahore ...	1,337	109	12·27
Karnal ...	957	74	12·93
Delhi ...	514	39	13·18
Shahpur ...	1,122	85	13·20
Ludhiana ...	699	51	13·71
Dera Ghazi Khan ...	812	58	14·00
Attock ...	968	68	14·24
Lyallpur ...	1,347	91	14·80
Gurgaon ...	940	57	16·49
Rohtak ...	922	51	18·08
Ferozpur ...	2,181	112	19·47
Hissar ...	2,510	89	28 20

Upper Burma, for the year 1912-13

Name of District	Total nett area cropped in acres	Ploughs	Number of acres to a ploughs
Ruby Mines ...	6,419	2,183	2·94
Kyaukse ...	179,666	16,682	10·77
Katha ...	183,710	16,654	11·03

TABLE XX—*contd.*

Upper Burma—*concld.*

Name of District	Total nett area cropped in acres	Ploughs	Number of acres to a plough
Mandalay ...	181,554	15,902	11·42
Myitkyina ...	48,179	3,342	14·42
Bhamo ...	87,347	5,674	15·39
Sagaing ...	490,006	30,175	16·24
Yamethin ...	354,253	10,125	34·99
Shwebo ...	555,875	14,724	37·75
Meiktila ...	399,538	6,772	59·00
Myingyan ...	680,140	10,393	65·44
Pakokku ...	496,540	6,419	77·35
Minbu ...	254,732	2,714	93·86
Lower Chindwin ...	487,627	5,158	94·54
Pakokku Hill Tracts ...	10,476	50	209 52
Magwe ...	409,862	1,102	371·93
Upper Chindwin ...	94,591	173	546·76

Lower Burma, for the year 1912-13

Kyaukpyu ...	199,773	30,153	6·63
Sandoway ...	82,857	10,433	7·94
Akyab ...	690,327	81,090	8·51
Salween ...	26,458	2,635	10·04
Henzada ...	565,861	37,369	15·14
Tharawadi ...	492,752	31,447	15·67
Thaton ...	702,884	44,754	15·71
Pegu ...	794,850	39,657	20·04
Amherst ...	481,964	22,865	21·34
Toungoo ...	423,058	18,299	23·17
Ma-ubin ...	425,399	16,159	26·32
Hanthawaddy ...	810,922	28,030	28·93
Bassein ...	685,671	23,514	29·16
Insein ...	508,825	17,240	29·51
Prome ...	360,987	9,285	38·88
Tavoy ...	139,750	2,936	47·60
Thayetmyo ...	233,628	3,694	63·27
Myaungmya ...	629,005	7,700	81·69
Pyapon ...	624,888	4,221	148·04
Rangoon Town ...	6,601	24	275·04
Mergui ...	127,924	102	1254·16

TABLE XX—*contd.*

Central Provinces, for the year 1912-13

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Balaghat ...	430	56	7·68
Raipur ...	2,031	194	10·47
Damoh ...	538	49	10·98
Bilaspur ...	1,636	147	11·14
Chanda ...	827	74	11·18
Mandla ...	671	55	12·20
Bhandara ...	903	74	12·20
Jubbulpore ...	1,032	83	12·43
Betul ...	704	51	13·80
Saugor ...	924	66	14·00
Drug ...	1,452	102	14·24
Seoni ...	789	51	15·47
Chhindwara ...	985	57	17·28
Narsinghpur ...	587	32	18·34
Nimar ...	880	47	18·72
Hoshangabad ...	926	46	20·13
Nagpur ...	1,355	51	26·57
Wardha ...	1,014	22	46·09

Berar, for the year 1912-13

Yeotmal ...	1,745	71	24·58
Akola ...	1,935	33	58·64
Buldana ...	1,580	22	71·82
Amraoti ...	1,678	18	93·22

Assam, for the year 1909-10

Garo Hills ...	35	8	4·37
Cachar ...	318	63	5·05
Darrang ...	313	58	5·40
Kamrup ...	591	102	5·79
Nowgong ...	263	45	5·84
Sibsagar ...	564	95	5·94
Lakhimpur ...	275	46	5·98
Goalpara ...	453	17	26·65
Sylhet ...	2,505	32	78·28

TABLE XX—*concld.*

North-West Frontier Province, for the year 1908-09

Name of District	Total nett area cropped in thousands of acres	Ploughs in thousands	Number of acres to a plough
Kurrum ...	38	8	4·75
Hazara ..	401	55	7·29
Tochi ...	13·41	1·38	9·72
Kohat ...	292	29	10·07
Peshawar ...	749	66	11·35
Bannu .	452	31	14·58
Dera Ismail Khan ...	493	25	19·72

Ajmer-Merwara, for the year 1908-09

Merwara ...	78	12	6·50
Ajmer ...	349	27	12·93

TABLE

Showing water rates per acre of flow and lift irrigation

British territory

Pun

N. B. This table is worked out from Statement I. F. of the

Name of Canal	Sugarcane (rates per crop)						Rice (rates per crop)					
	Flow			Lift			Flow			Lift		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Western Jumna Canal including Sirsa Branch ...	9	0	0	6	0	0	6	8	0	4	0	0
Lower Chautang Nala Canal.	4	2	0	2	12	0	4	2	0	2	12	0
(*a*) Sirhind Canal Zone I ...	12	0	0	6	0	0	5	4	0	2	10	0
(*b*) Sirhind Canal Zone II ...	10	0	0	5	0	0	5	0	0	2	8	0
(*c*) Sirhind Canal Zone II ...	7	8	0	5	0	0	7	8	0	5	0	0
Upper Bari Doab Canal ...	7	1	0	3	8	6	6	0	10	3	0	5
Lower Bari Doab Canal ...	9	0	0	4	8	0	7	8	0	3	12	0
Upper Chenab Canal ...	9	0	0	4	8	0	7	8	0	3	12	0
(*d*) Lower Chenab Canal ...	8	0	0	4	4	0	6	12	0	3	10	0
(*e*) Lower Chenab Canal ...	7	8	0	3	12	0	6	4	0	3	2	0
(*f*) Lower Chenab Canal ...	...			...			...			...		
Lower Jhelum Canal ...	10	0	0	5	0	0	6	4	0	3	2	0
(*g*) Lower Jhelum Canal ..	7	8	0	3	12	0	4	0	0	2	0	0
Lower Sohag and Para Canal.	2	4	0	1	2	0	3	4	0	1	10	0
Upper Sutlej Inundation Canals ...	2	4	0 per acre	1	2	0	3	4	0 per acre	1	10	0
Sidhnai Canals ...	3	5	0 per acre	1	10	0	3	5	0 per acre	1	10	6
Lower Sutlej Inundation Canals ...	1	12	0 per acre of crop	1	5	0 matured	2	4	0 per acre of crop	1	11	0 matured

(*a*) All lands irrigated by the British Branches of the Sirhind Canal with the
(*b*) All lands irrigated by the British Branches of the Sirhind Canal in the
(*c*) All lands irrigated by other than the British Branches of the Sirhind
(*d*) Applicable to—
(*i*) all estates in the Gujranwala District which were established before
(*ii*) all estates in the Jhang District which were established before 1st Jhang District; and such proprietary wells as are now or may here-
(*iii*) all estates in the Gugera and Montgomery tahsils of the Montgomery
(*iv*) all estates in the Multan and Lahore Districts which were established
(*e*) Applicable to estates other than those referred to in (*d*) above.
(*f*) Applicable to certain Chaks in the Gujranwala, Lyallpur and Jhang
(*g*) Applicable to—
(*i*) all villages or portions of villages in the Bhera Tahsil irrigated from
(*ii*) all villages in the Shahpur Tahsil, except Sher Muhammadwala and Feeder including the Sahiwal Distributary and Gondal Distri-
(*iii*) some villages in the Sargodha Tahsil.

XXI

in force on the canals of India during the year 1915-16.

Provincial

jab

Administration Report for 1915-16, Irrigation Department Punjab.

Tobacco (rates per crop)						Vegetables (rates per crop)						Gardens and Orchards (rates per half-year)						Cotton (rates per crop)					
Flow			Lift			Flow			Lift			Flow			Lift			Flow			Lift		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
5	8	0	3	8	0	5	8	0	3	8	0	5	8	0	3	8	0	4	0	0	2	8	0
	...			...			...			...			...			...		2	8	0	1	10	8
4	0	0	2	0	0	5	4	0	2	10	0	5	4	0	2	10	0	4	0	0	2	0	0
3	12	0	1	14	0	5	0	0	2	8	0	5	0	0	2	8	0	3	12	0	1	14	0
4	8	0	3	0	0	4	8	0	3	0	0	4	8	0	3	0	0	3	12	0	2	8	0
4	8	8	2	4	4	4	8	8	2	4	4	4	8	8	2	4	4		...			...	
5	0	0	2	8	0	5	0	0	2	8	0	5	0	0	2	8	0	4	0	0	2	0	0
5	0	0	2	8	0	5	0	0	2	8	0	5	0	0	2	8	0	4	0	0	2	0	0
5	8	0	3	0	0	5	8	0	3	0	0	5	8	0	3	0	0	4	4	0	2	6	0
5	0	0	2	8	0	5	0	0	2	8	0	5	0	0	2	8	0	3	12	0	1	14	0
	...			...			...			...			...			.		3	0	0	1	12	0
5	0	0	2	8	0	5	0	0	2	8	0	5	0	0	2	8	0	3	12	0	1	14	0
	...			...		5	0	0	2	8	0	5	0	0	2	8	0	3	0	0	1	8	0
	...			...		1	0	0	0	8	0	3	4	0	1	10	0	2	4	0	1	2	0
							per		per	acre			per		acre				per		acre		
	...			...		1	0	0	0	8	0	3	4	0	1	10	0	2	4	0	1	2	0
							per		per	acre			per		acre				per		acre		
3	5	0	1	10	6	3	5	0	1	10	6		...			...		3	5	0	1	10	6
	...			...			...			...		2	4	0	1	11	0	1	12	0	1	5	0
												per acre ed crop			of matur-			per acre ed crop			of matur-		

exception of those situated in the Fazilka Tahsil of the Ferozepore District.
Fazilka Tahsil of the Ferozepore District.
Canal.

the 1st January 1892:
January 1892, except those which were transferred from the Montgomery to the
after be included within the boun laries of the Colony Mauza;
District which were established before 1st January 1894; and
before 1st April 1902.

Districts.

the Khadir Feeder or Khadir Distributary;
Wegowal and except all villages or portions of villages irrigated from the Sahiwal
butary; and

Name of Canal	Indigo (rates per crop)				Rabi Crops (rates per crop)			
	Flow Rs. a. p.			Lift Rs. a. p.	Flow Rs. a. p.			Lift Rs. a. p.
Western Jamna Canal including Sirsa Branch ...	4	0	0	2 8 0	4	0	0	2 8 0
Lower Chautang Nala Canal.	2	8	0	1 10	...			...
(a) Sirhind Canal Zone I ...	5	4	0	2 10 0	3	4	0	1 10 0
(b) Sirhind Canal Zone II ...	5	0	0	2 8 0	3	12	0	1 14 0
(c) Sirhind Canal Zone II ...	4	8	0	3 0 0	3	12	0	2 8 0
Upper Bari Doab Canal ...	3	12	6	1 14 3	3	12	6	1 14 3

(a) All lands irrigated by the British Branches of the Sirhind Canal with the
(b) All lands irrigated by the British Branches of the Sirhind Canal in the
(c) All lands irrigated by other than the British Branches of the Sirhind

XI—*contd.*

jab—*contd.*

Miscellaneous (rates per crop)		Kharif crops (rates per crop)		Miscellaneous		Miscellaneous	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p	Rs. a. p	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.
				Crops grown on the moisture of a previous crop		Single watering before ploughing not followed by a canal irrigated crop in the same harvest	Single watering before ploughing not followed by a canal irrigated crop in or next harvest
Gram and masur						1 0 0	0 8 0
2 8 0	1 8 0	2 8 0	1 8 0	1 0 0	0 8 0	Single watering before ploughing for rabi followed by a crop	
Maize						1 2 0	0 12 0
2 8 0	1 10 8	1 12 0	1 2 8	...	...	Single watering before ploughing not followed by a rabi crop in the same or next harvest	
Maize and wheat				Barley and oil-seeds		1 8 0	0 12 0
5 4 0	2 10 0	3 4 0	1 10 0	4 0 0	2 0 0	Single watering before ploughing not followed by a canal irrigated crop in the same or next harvest	
Gram and Masur				Maize and wheat		1 8 0	0 12 0
3 0 0	1 8 0	3 12 0	1 14 0	5 0 0	2 8 0	Single watering before ploughing not followed by a canal irrigated crop in the same or next harvest	
				A single watering before ploughing for rabi followed by a rabi crop			
Gram and Masur						0 12 0	0 8 0
2 10 0	1 12 0	2 10 0	1 12 0	1 8 0	1 0 0	Single*...	harvest
				For any number of waterings in the kharif season			
Gram and Masur						1 0 2	0 8 1
2 12 5	1 6 2½	2 12 5	1 6 2½	1 3 4 per half-year	0 9 8	Single*...	harvest

exception of those situated in the Fazilka Tahsil of the Ferozepore District.
Fazilka Tahsil of the Ferozepore District.
Canal.

* Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest.

Name of Canal	Indigo (rates per crop)		Rabi Crops (rates per crop)	
	Flow Rs. a. p.	Lift Rs. a. p.	Flow Rs. a. p.	Lift Rs. a. p.
Lower Bari Doab Canal ...	5 0 0	2 8 0	4 0 0	2 0 0
Upper Chenab Canal ...	5 0 0	2 8 0	4 0 0	2 0 0
(*d*) Lower Chenab Canal ...	5 8 0	3 0 0	4 4 0	2 6 0
(*e*) Lower Chenab Canal ...	5 0 0	2 8 0	3 12 0	1 14 0
(*f*) Lower Chenab Canal ..	...	...	3 0 0	1 12 0
Lower Jhelum Canal ...	5 0 0	2 8 0	3 12 0	1 14 0
(*g*) Lower Jhelum Canal ...	5 0 0	2 8 0	2 8 0	1 4 0
Lower Sohag and Para Canal.	...	...	1 0 0 per acre	0 8 0
Upper Sutlej Inundation Canals ...	...	...	1 0 0 per acre	0 8 0
Sidhnai Canals ...	...	...	2 2 0	1 1 0
Lower Sutlej Inundation Canals ..	...	...	0 14 0 per acre of matured crop	0 10 0

(*d*) Applicable to—
(*i*) all estates in the Gujranwala District which were established before
(*ii*) all estates in the Jhang District which were established before 1st. Jhang District, and such proprietary wells as are now or may
(*iii*) all estates in the Gugera and Montgomery tahsils of the Montgomery
(*iv*) all estates in the Multan and Lahore Districts which were stablished
(*e*) Applicable to estates other than those referred to in (*d*) above.
(*f*) Applicable to certain Chaks in the Gujranwala, Lyallpur and Jhang
(*g*) Applicable to—
(*i*) all villages or portions of villages in the Bhera Tahsil irrigated
(*ii*) all villages in the Shahpur Tahsil, except Sher Muhammadwala and Feeder including the Sahiwal Distributary and Gondal Distri-
(*iii*) Some villages in the Sargodha Tahsil.

XI—*contd.*

jab—*contd.*

Miscellaneous (rates per crop)		Kharif crops (rates per crop)		Miscellaneous		Miscellaneous	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Gram and masur				Grass		Single*...	harvest
2 4 0	1 2 0	3 0 0	1 8 0	1 4 0 per half-year	0 10 0	0 8 0 Single*...	0 4 0 harvest
Gram and masur				Grass			
2 4 0	1 2 0	3 0 0	1 8 0	1 4 0 per half-year	0 10 0	0 8 0 Single*...	0 4 0 harvest
Gram and masur				Grass			
3 0 0	1 12 0	3 0 0	1 12 0	1 4 0 per half-year	0 10 0	1 12 0 Single*...	1 2 0 harvest
Gram and masur				Grass			
2 8 0	1 4 0	2 8 0	1 4 0	1 4 0 per half-year	0 10 0	1 4 0	0 10 0
Gram and masur				Maize		...	...
2 0 0	1 4 0	2 0 0	1 4 0	3 0 0	1 12 0	Single*...	harvest
Gram and masur				Grass			
2 8 0	1 4 0	2 8 0	1 4 0	1 4 0 per half-year	0 10 0	1 4 0 Single*...	0 10 0 harvest
Gram and masur				Grass			
2 0 0	1 0 0	2 0 0	1 0 0	1 4 0 per half-year	0 10 0	1 4 0	0 10 0
Failed rabi crops				Grasses			
0 8 0 per acre	0 4 0	1 4 0 per acre	0 10 0	0 8 0 per acre	0 4 0	...	...
Failed rabi crops				Grasses			
0 8 0 per acre	0 4 0	1 4 0 per acre	0 10 0	0 8 0 per acre	0 4 0	...	...
...	...	2 6 0	1 3 0	...	...	...	...
...	...	1 8 0 per acre of matured crop	1 2 0	...	...	..	...

the 1st. January 1892;
January 1892, except those which were transferred from the Montgomery to the
hereafter be included within the boundaries of the Colony Mauza;
District which were established before 1st. January 1894; and
before 1st. April 1902.

Districts.

from the Khadir Feeder or Khadir Distributary:
Wegowal and except all villages or portions of villages irrigated from the Sahiwal
butary.

*Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest.

Name of Canal	Sugarcane (rates per acre of matured crop)		Rice (rates per acre of matured crop)	
	Flow	Lift	Flow	Lift
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Chenab Inundation Canals ...	1 12 0	1 5 0	2 4 0	1 11 0
Hajiwaha Canal ...	1 12 0	1 5 0	2 4 0	1 11 0
Indus Inundation Canals (Kadra Canal)	...	...	...	...
Indus Inundation Canals (all other canals)	...	...	1 4 0 per acre in Khan and	1 4 0 Dera Ghazi Jampur tahsils.
Shahpur Inundation Canals (Provincial—Raniwah and Imperial)	2 8 0 per	1 4 0 acre	3 8 0 per	1 4 0 acre
Shahpur Inundation Canals (Provincial-Corbynwah) ...	1 8 0 per	0 12 0 acre	1 8 0 per	0 12 0 acre
Muzaffargarh Inundation Canals (Chenab Canals) ...	1 8 0	0 12 0	2 12 0	1 6 0
Muzaffargarh Inundation Canals (Indus Canals)	1 0 0	0 8 0	2 0 0	1 0 0
Ghaggar Inundation Canals (British)	8 8 0	4 4 0	6 0 0	3 0 0
Delhi and Gurgaon works...	...	...	...	..

XXI—*contd*

—*contd.*

Tobacco (rates per acre of matured crop)		Vegetables (rates per acre of matured crop)		Gadens and Orchards (rates per acre of matured crop)		Cotton (rates per acre of matured crop)	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	...	...	2 4 0	1 11 0	1 12 0	1 5 0
...	...	...	...	2 4 0	1 11 0	1 12 0	1 5 0
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
2 8 0 per	1 4 0 acre	2 8 0 per	1 4 0 acre	2 8 0 per	1 4 0 acre	2 8 0 per	1 4 0 acre
1 8 0 per	0 12 0 acre	1 8 0 per	0 12 0 acre	1 8 0 per	0 12 0 acre	1 8 0 per	0 12 0 acre
...	...	...	...	2 12 0	1 6 0	1 8 0	0 12 0
...	...	...	...	2 0 0	1 0 0	1 0 0	0 8 0
2 8 0	1 4 0	2 8 0	1 4 0	...	...	2 8 0	1 4 0
...	...	...	...	...	...	...	...

Name of Canal	Indigo (rates per acre of matured crop)		Rabi Crops (rates per acre of matured crop)	
	Flow	Lift	Flow	Lift
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Chenab Inundation Canals ...	...	...	0 14 0	0 10 0
Hajiwaha Canal ...	...	...	0 14 0	0 10 0
Indus Inundation Canals (Kadra Canal)	...	...	0 12 0 per	0 6 0 acre
Indus Inundation Canals (all other canals)	...	...	0 8 0 per	0 4 0 acre
Shahpur Inundation Canals (Provincial—Raniwah and Imperial)	2 8 0 per	1 4 0 acre	2 8 0 per	1 4 0 acre
Shahpur Inundation Canals (Provincial-Corbynwah) ...	1 8 0 per	0 12 0 acre	1 8 0 per	0 12 0 acre
Muzaffargarh Inundation Canals (Chenab Canals) ...	1 8 0	0 12 0	0 12 0	0 6 0
Muzaffargarh Inundation Canals (Indus Canals) ...	1 0 0	0 8 0	0 8 0	0 4 0
Ghaggar Inundation Canals (British)	2 8 0	1 4 0	2 8 0	1 4 0
Delhi and Gurgaon works ...	...	...	Rs. a. p. 0 6 5	

XXI—*contd*

—*concld*:

Miscellaneous (rates per acre of matured crop)		Kharif Crops (rates per acre of matured crop)		Miscellaneous (rates per acre of matured crop)		Miscellaneous (rates per acre of matured crop)	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs a. p.	Rs. a. p
pep per 2 4 0	1 11 0	1 8 0	1 2 0	t l 1 12 0	1 5 0	...	...
pep per 2 4 0	1 11 0	1 8 0	1 2 0	ti l 1 12 0	1 5 0	...	...
...	...	1 8 0 per	0 12 0 acre	...	...	...	...
...	...	1 0 0 per	0 8 0 acre	...	...	...	...
...	...	2 8 0 per	1 4 0 acre	grass lands 1 4 0 per	1 4 0 acre	...	...
...	...	1 8 0 per	0 12 0 acre	grass lands 0 2 0 per	0 1 0 acre	...	...
pep per 2 12 0	1 6 0	1 2 0	0 9 0	grass lands 0 6 0	0 3 0	...	...
pep per 2 0 0	1 0 0	0 12 0	0 9 0	grass lands 0 4 0	0 2 0	...	...
...	...	2 8 0	1 4 0	water nuts 6 0 0	3 0 0	...	...
...	...	Rs. a. p. 0 6 4 4/5		grass Rs. a. p. 0 3 3 2/5		...	...

TABLE XXI

North-West

N. B.—This table is worked out from statement I.F. of the Administration

Name of Canal	Sugarcane (rates per crop)						Rice (rates per crop)					
	Flow			Lift			Flow			Lift		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Lower Swat River Canal ...	6	4	0	3	2	0	6	4	0	3	2	0
Kabul River Canal, (Koh Daman Michni Circle) ...	6	0	0	3	0	0	4	0	0	2	0	0
Kabul River Canal (Kabul Nahri Circle) ...	7	0	0	3	8	0	6	0	0	3	0	0
Kabul River Canal (Kasba Bagram Circle) ...	8	0	0	4	0	0	7	0	0	3	8	0
Kabul River Canal (Bara Circle)	7	0	0	3	8	0	6	0	0	3	0	0
Kabul River Canal (Chabi Nahri Circle) ...	7	0	0	3	8	0	6	0	0	3	0	0
Paharpur Canal (Kachcha and Paharpur Circles) ...	2	0	0	1	0	0	2	0	0	1	0	0
Paharpur Canal (Daman Circle)	3	0	0	1	8	0	3	0	0	1	8	0

—*contd.*

Frontier

Report 1915-16, Public Works Department, North-West Frontier Province.

Tobacco (rates per crop)						Vegetables (rates per crop)						Gardens and Orchards						Cotton (rates per crop)					
Flow			Lift			Flow			Lift			Flow			Lift			Flow			Lift		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
4	8	0	2	4	0	4	8	0	2	4	0	6	4	0 per	3	2	0 annum	3	12	0	1	14	0
4	0	0	2	0	0	4	0	0	2	0	0	6	0	0	3	0	0	3	8	0	1	12	0
6	0	0	3	0	0	6	0	0	3	0	0	7	0	0	3	8	0	4	0	0	2	0	0
7	0	0	3	8	0	7	0	0	3	8	0	8	0	0	4	0	0	5	0	0	2	8	0
6	0	0	3	0	0	6	0	0	3	0	0	7	0	0	3	8	0	4	0	0	2	0	0
6	0	0	3	0	0	6	0	0	3	0	0	7	0	0	3	8	0	4	0	0	2	0	0
2	0	0	1	0	0	2	0	0	1	0	0	2	0	0 per	1	0	0 annum	1	10	0	0	13	0
3	0	0	1	8	0	3	0	0	1	8	0	3	0	0 per	1	8	0 annum	2	8	0	1	4	0

TABLE XXI

North-West

Name of Canal	Indigo (rates per crop)						Rabi Crops (rates per crop)					
	Flow			Lift			Flow			Lift		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Lower Swat River Canal ..	4	8	0	2	4	0	3	0	0	1	8	0
Kabul River Canal (Koh Daman Michni Circle) ...	3	8	0	1	12	0	3	0	0	1	8	0
Kabul River Canal (Kabul Nahri Circle) ...	4	0	0	2	0	0	3	8	0	1	12	0
Kabul River Canal (Kasba Bagram Circle) ...	5	0	0	2	8	0	4	0	0	2	0	0
Kabul River Canal (Bara Circle)	4	0	0	2	0	0	3	8	0	1	12	0
Kabul River Canal (Chahi Nahri Circle) ...	4	0	0	2	0	0	3	8	0	1	12	0
Paharpur Canal (Kachcha and Paharpur Circles) ...	2	0	0	1	0	0	1	0	0	0	8	0
Paharpur Canal (Daman Circle)	3	0	0	1	8	0	2	0	0	1	0	0

—*contd.*

Frontier—*concld.*

Miscellaneous (rates per crop)		Kharif Crops (rates per crop)		Miscellaneous (rates per crop)		Miscellaneous (rates per crop)	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	3 0 0	1 8 0	Barley and maize 3 2 0	1 9 0	Grass 1 4 0	0 10 0
...	...	2 8 0	1 4 0	...	...	...	...
...	...	3 0 0	1 8 0	...	...	...	...
...	...	4 0 0	2 0 0	...	...	...	...
...	...	3 0 0	1 8 0	...	...	...	...
...	...	3 0 0	1 8 0	...	...	...	...
...	...	1 4 0	0 10 0	Wheat and maize 1 10 0	0 13 0	Grass 0 4 0	0 2 0
...	...	2 4 0	1 2 0	Wheat and maize 2 8 0	1 4 0	Grass 0 8 0	0 4 0

United Pro

N.B.—This table is worked out from statement I. F. of the Irrigation Ad- March 1916.

Name of Canal	Sugarcane (rates per year)		Rice (rates per crop)	
	Flow	Lift	Flow	Lift
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Upper Ganges and Eastern Jamna Canals ...	6 10 8	3 5 4	6 10 8	3 5 4
Lower Ganges, and Agra Canals	6 10 8	3 5 4	4 0 0 per year	4 0 0
Fatehpur branch and Ghatampur distributary extension ...	5 0 0	2 8 0	4 0 0	4 0 0
Agra Canal (in the Delhi and Gurgaon districts) ...	8 0 0	4 0 0	5 0 0	5 0 0
Dun Canals ...	6 10 8	...	4 0 0	
Bijnor Canals ...	2 8 0	1 10 8	2 4 0	1 8 0
Betwa Canals ...	5 0 0	2 8 0	...	...
Ken Canal ...	5 0 0	2 8 0	2 0 0	2 0 0
Dhasan Canal and Majhgawan tank ..	5 0 0	2 8 0	2 0 0	1 0 0
Pahuj and Garhman Canals, Jhansi district ...	5 0 0	2 8 0	...	...
Jhansi and Hamirpur lakes ...	3 5 0	1 10 9	2 4 0	1 2 0
Ghori and Sukhra Canals ...	5 0 0	2 8 0	4 0 0	2 0 0
Gorai Canals ...	5 0 0	2 8 0	4 0 0	2 0 0
Rohilkhand Canals (A) ..	4 10 8	3 0 0	4 0 0 (irrigated before 15th June)	2 0 0
Rohilkhand Canals (B) ...	3 10 8	2 0 0	3 0 0 (irrigated before 15th June)	1 8 0
Rohilkhand Canals (C) ...	2 5 4	1 8 0	2 0 0 (irrigated before 15th June)	1 0 0
Rohilkhand Canals (D) ...	1 2 8	0 13 4	1 0 0 (irrigated before 15th June)	0 8 0

Tobacco (rates per crop)						Vegetables (rates per crop)						Gardens and Orchards						Cotton (rates per crop)					
Flow			Lift			Flow			Lift			Flow			Lift			Flow			Lift		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
4	0	0	2	0	0	4	0	0	2	0	0	4	0	0 per half	2	0	0 -year	...			...		
4	0	0	2	0	0	4	0	0	2	0	0	4	0	0 per half	2	0	0 -year	...			...		
4	0	0	2	0	0	4	0	0	2	0	0	4	0	0 per half	2	0	0 -year	...			...		
5	0	0	2	8	0	5	0	0	2	8	0	5	0	0 per half	2	8	0 -year	...			...		
4	0	0		...			...			...		6	10	8 per half		...	-year	2	4	0	...		
2	0	0	1	8	0	2	0	0	1	8	0	5	0	0 per	4	0	0 -year	1	0	0	0	12	0
4	0	0	2	0	0	4	0	0	2	0	0	4	0	0	2	0	0	..			...		
3	0	0	1	8	0	3	0	0	1	8	0	3	0	0	1	8	0	..			...		
4	0	0	2	0	0	4	0	0	2	0	0	4	0	0	2	0	0	...			...		
4	0	0	2	0	0	4	0	0	2	0	0	4	0	0	2	0	0	...			...		
2	4	0	1	2	0	2	4	0	1	2	0	2	4	0	1	2	0	...			...		
	...			...		4	0	0	2	0	0	4	0	0	2	0	0	...			...		
	...			...		4	0	0	2	0	0		...			...		...			...		
4	10	8 per	3	0	0 year	4	10	8 per	3	0	0 year	4	10	8 per	3	0	0 year	...			...		
3	10	8 per	2	0	0 year	3	10	8 per	2	0	0 year	3	10	8 per	2	0	0 year	...			...		
2	5	4 per	1	8	0 year	2	5	4 per	1	8	0 year	2	5	4 per	1	8	0 year	...			...		
1	2	8 per	0	13	4 year	1	2	8 per	0	13	4 year	1	2	8 per	0	13	4 year	...			...		

TABLE XXI

United Pro

Name of Canal	Indigo (rates per crop)				Rabi Crops (rates per crop)					
	Flow			Lift			Flow			Lift		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Upper Ganges and Eastern Jamna Canals ...	...			...			4	0	0	2	0	0
Lower Ganges, and Agra Canals	...			...			4	0	0	2	0	0
Fatehpur branch and Ghatampur distributary extension ...	...			...			4	0	0	2	0	0
Agra Canal (in the Delhi and Gurgaon districts) ...	...			...			5	0	0	2	8	0
Dun Canals ..	2	4	0	...			..			...		

—*contd.*

vinces—*contd.*

Miscellaneous (rates per crop)		Kharif Crops (rates per crop)		Miscellaneous (rates per crop)		Miscellaneous (rates per crop)	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Gram, linseed and peas							
2 0 0	1 0 0	2 0 0	1 0 0	...	...	...	...
Gram, linseed and peas							
2 0 0	1 0 0	2 0 0	1 0 0	...	...	...	...
Gram, linseed and peas							
2 0 0	1 0 0	2 0 0	1 0 0	...	...	...	...
Gram, linseed and peas							
3 0 0	1 8 0	3 0 0	1 8 0	...	...	...	...
				Wheat and oats		Tea	
...	..	...	...	2 4 0	...	6 10 8	...

TABLE XXI

United Pro

Name of Canal	Indigo (rates per crop)				Rabi crops (rates per crop)			
	Flow		Lift		Flow		Lift	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Bijnor Canals ...	2	0 0	1	8 0	..		...	
Betwa Canals ...	...		..		3	0 0	1	8 0
Ken Canal ...	...		...		2	0 0	1	0 0
Dhasan Canal and Majhgawan tank ...	...		...		2	0 0	1	0 0
Pahuj and Garhman Canals, Jhansi district ...	...		...		3	0 0	1	8 0
Jhansi and Hamirpur lakes ...	...		...		1	11 0	0	13 6
Ghori and Sukhra Canals ..	...		...		2	0 0	1	0 0
Gorai Canals ...	...		...		2	0 0	1	0 0
Rohilkhand Canals (A) ...	...		...		2	0 0	1	0 0
Rohilkhand Canals (B) ...	...		...		1	5 4	0	10 8
Rohilkhand Canals (C) ...	...		...		1	0 0	0	8 0
Rohilkhand Canals (D) ...	...		...		0	10 8	0	5 4

—*contd.*

vinces—*contd.*

Miscellaneous (rates per crop)		Kharif Crops (rates per crop)		Miscellaneous (rates per crop)		Miscellaneous (rates per crop)	
Flow	Lift	Flow	Lift	Flow	Lift	Flow	Lift
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
...	...	...	...	Wheat, barley 1 9 0	oats and 0 12 0	Grass 1 0 0	0 12 0
Gram, linseed and peas 2 0 0	1 0 0	2 0 0	1 0 0	...	...	One watering before sowing 1 0 0	0 8 0
...	...	2 0 0	1 0 0	Wheat and barley 3 0 0	1 8 0	...	...
...	...	2 0 0	1 0 0	Wheat and barley 3 0 0	1 8 0	...	...
Gram, linseed and peas 2 0 0	1 0 0	2 0 0	1 0 0	...	...	...	...
...	...	1 2 0	0 9 0	..	...	...	...
Wheat and barley 3 0 0	1 8 0	2 0 0	1 0 0	...	...	...	...
Wheat and barley 3 0 0	1 8 0	2 0 0	1 0 0	...	...	...	...
Wheat, barley and rice (irrigated after 15th June) 2 0 0	1 0 0	2 0 0	1 0 0	...	...	...	...
*Wheat... 15th June 1 5 4	0 10 8	1 5 4	0 10 8	...	...	...	...
*Wheat... 15th June 1 0 0	0 8 0	1 0 0	0 8 0	...	...	...	...
*Wheat... 15th June 0 10 8	0 5 4	0 10 8	0 5 4	...	...	...	...

* Wheat, barley and rice (irrigated after 15th June.)

TABLE XXI—*contd.*

Bengal

N. B.—This table is worked out from Irrigation Revenue Report of the Government of Bengal for the year 1914-15, *Statement P. F.*

MIDNAPUR CANAL.

	Per acre per season. Rs. A. P.
For water supplied on a lease for a term of years ...	2 0 0
	Per acre Rs. A. P.
For water supplied on a covering lease to irrigated lands for which a preliminary application for a lease for a term of years has been received and failing the completion of the same	3 0 0
Supply given from date of covering lease to 30th November of that year	1 0 0
For water supplied on a season lease for the irrigation of any crops between 1st December and 15th June ...	2 8 0

EDEN CANAL

		Per bigha.* Rs. A. P.
I.	Long leases per season	0 8 0
II.	Season leases, Kharif per season	0 12 0
III.	Single waterings outside the area commanded, each watering	0 4 0
IV.	Season leases, rabi, sugarcane, potato and other crops irrigated by flow per season	1 0 0
	Season leases, rabi, sugarcane, potato and other crops itrigated by lift per season ...	0 8 9
	Boro rice, onions, brinjals and other country vegetables irrigated by flow per season ...	0 8 0
	Boro rice, onions, brinjals and other country vegetables irrigated by lift per season ...	0 4 0
V.	Unauthorised irrigation—	
	Kharif season	†1 0 0
	Rabi season	†2 0 0

When tanks which are used both for irrigation and domestic purposes are filled with canal water, a charge of Rs. 25 will be made for each small village and of Rs. 50 for each large village in which the tanks are filled.

Rupee one for each 10,000 cubic feet or part of 10,000 cubic feet will be charged if water is taken into a tank without authority or used in an unauthorised manner.

*On the Eden canal the bigha is the equivalent of $\frac{1}{3}$ of an acre.
†Or such lower rate as may be fixed by the Canal Officer.

TABLE XXI—*contd.*

Madras

N. B. This table is worked out from Appendix I, statement F. I. of Administration Report for the year 1915-16, Part II-Irrigation, Public Works Department, Madras Presidency.

Description of crop	Godavari and Kistna anaikats except Government dry lands on which the differential water-rates are levied)	Divi pumping system	Kurnool-Cuddapah canal	Rushikulya system	Periyar system
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Single wet crop	5 0 0	5 0 0	4 0 0	...	5 0 0
2. Second wet crop	5 0 0	2 8 0 plus half the dry assessment	3 0 0	...	3 0 0
3. Second wet crop (if compounded for two crops for a term of not less than five years)	8 2 0	...	6 0 0	...	...
4. Second dry crop on irrigated land except where the landholder has compounded under clause 3	2 8 0	2 8 0	1 0 0	...	...
5. For sugarcane betel and other garden produce remaining on the ground for the time of two crops	10 0 0	...	6 0 0	...	8 0 0

TABLE XXI—*contd.*

Madras—contd.

Description of crop.	Godavari and Kistna anaikats (except Government dry lands on which the differential water-rates are levied)	Divi pumping system	Kurnool-Cuddapah canal	Rushikulya system	Periyar system
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
6. For sugarcane, betel and other garden produce remaining on the ground for the time of two crops if compounded for a term of not less than five years	8 2 0	...	...	...	...
7. For a dry crop whether first or second grown on land for which irrigation has never been supplied or having been once supplied has been since discontinued	2 8 0	2 8 0	1 0 0	...	...
8. For a third irrigated crop (wet)	2 0 0	2 0 0	2 0 0	...	2 0 0
9. Do. Do. (dry)	1 0 0	1 0 0	1 0 0	...	1 0 0
10. Dry crop systematically irrigated	5 0 0	5 0 0	...	...	...
11. The charge for a single wet crop when the Collector considers the supply of water to be precarious	2 8 0	2 8 0	...	...	...
12. Second wet crop in the case of zamindari and inam lands ...	...	5 0 0	...	...	...

13. Second wet crop in the case of zamindari and inam lands where the cultivator has compounded for a term of not less than five years	...	8 2 0	...	...	...
14. For sugarcane, betel and other garden produce remaining on the ground for the time of two crops	...	7 8 0 plus half the dry assessment.	...	...	...
15. For sugarcane, betel and other garden produce in zamindari and inam lands remaining on the ground for the time of two crops	...	10 0 0	...	...	...
16. For sugarcane, betel and other garden produce in zamindari and inam lands remaining on the ground for a time of two crops, if the cultivator has compounded for a term of not less than five years	...	8 2 0	...	...	...
17. Single dry crop	...	...	1 0 0	...	...
18. Garden crops (class 2 of the Madras Irrigation and Canal Company's rules)	...	...	3 0 0	...	...
19. Mundla Paddy	...	...	2 0 0	...	...
20. (*a*) Water rate for a single wet crop on wet or mamul irrigated lands in zamindaris and whole inam villages, the old sources of supply to which have not been interfered with, but for which canal water is taken ...	...	..	...	2 0 0	...
20. (*b*) Water-rate for a single wet-crop raised on rainfed paddy lands, whether in Government, zamindari or whole inam villages	...	...	...	2 0 0	...

TABLE XXI—*contd.*

Madras—contd.

Description of crop	Godavari and Kistna anaikats (except Government dry lands on which the differential water-rates are levied)	Divi pumping system	Kurnool-Cuddapah system	Rushikulya system	Periyar system
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
20 (*c*) Water-rate for a single wet-crop raised on ordinary dry lands, whether in Government, zamindari or whole inam villages	...	...	...	3 0 0	...
20 (*d*) Water-rate for a single wet-crop raised on land falling under either of the above three heads (*a*), (*b*) and (*c*)	...	...	...	1 8 0	...
20 (*e*) Water-rate for a second wet crop or for sugarcane, betel, etc., requiring water longer than an ordinary wet-crop, raised on lands in zamindari and whole inam villages deprived wholly or partially of their old sources of irrigation, but which are entitled to free irrigation for only one wet crop	...	...	...	1 8 0	...
20 (*f*) Water-rate on lands falling under either of the first three heads (*a*), (*b*) and (*c*) cultivated with sugarcane, betel etc., requiring water longer than an ordinary wet-crop	...	...	...	4 8 0	...

20 (*g*) Water-rate for dry crops, whether first or second, irrigated on lands falling under either of the first three heads (*a*), (*b*) and (*c*)	...	...	...	...	1	8	0	...				
20. (*h*) Water-rate for an irrigated dry crop raised as second crop on lands falling under head (*c*) and on registered single crop wet lands in Government villages, provided that in the latter case half the first crop assessment may be levied instead, if it is less than the water-rate ...	...	...	...	...	1	8	0	...				
21. For a first dry crop systematically irrigated	...	...	...	...	...			5	0	0		
22. For a second dry crop	...	...	...	...	...			3	0	0		
23. For a first or second dry crop occasionally irrigated ...	...	...	...	...	...			2	8	0		
24. Special crops like onions, sweet potatoes, chilies, tobacco (the same as for a dry crop systematically irrigated) ...	...	...	...	...	...			5	0	0		
25. Mango topes, cocoanut topes and other tope plantations (*a*) if they take water for a term of two crops ...	...	...	...	...	...			8	0	0		
(*b*) In other cases	...	...	...	...	...			5	0	0		

NOTE.—When the water used for irrigation cannot be obtained without raising it by baling or by some mechanical contrivance, a deduction of one-fourth of the water-rate will be made.

TABLE XXI—*contd.*

Madras—*concld.*

First crop on dry land	Second crop on dry land	Charge for		Total charge
		First crop	Second crop	
		Rs.	Rs. a. p.	Rs. a p.
1. Wet	Wet	4	2 0 0	6 0 0
2. Do.	Dry, systematically irrigated ...	4	1 8 0	5 8 0
3. Do.	Dry, occasionally irrigated ...	4	1 0 0	5 0 0
4. Dry, systematically irrigated ...	Wet	3	2 8 0	5 8 0
5. Do. Do. ...	Dry, systematically irrigated ...	3	2 0 0	5 0 0
6. Do. Do. ...	Dry, occasionally irrigated ...	3	1 8 0	4 8 0
7. Dry, occasionally irrigated ...	Wet	2	3 0 0	5 0 0
8. Do. Do. ...	Dry, systematically irrigated ...	2	2 8 0	4 8 0
9. Do. Do. ...	Dry, occasionally irrigated ...	2	2 0 0	4 0 0

TABLE

Bombay Presidency

N. B.—This table is worked out from statement I.F. of the Administra-
Bombay

Name of work	Perennial		Early eight months.	
	Flow Rs. a. p.	Lift Rs. a. p.	Flow Rs. a. p.	Lift Rs. a. p.
MAJOR WORKS				
Protective Works				
Paravara River Works—Paravara Right Bank Canal§ ...	...	...	...	..
Girna Left Bank Canal§ ...	14 0 0	7 0 0	8 0 0	4 0 0
Godavari Right Bank Canal§ ...	15 0 0	7 8 0	8 0 0	4 0 0
Godavari Left Bank Canal§ ...	15 0 0	7 8 0	8 0 0	4 0 0
Mhasvad Tank§	13 0 0	6 8 0	7 0 0	3 8 0
Nira Canal and Shetphal Tank	A 35 0 0 B 30 0 0 † 15 0 0	17 8 0 15 0 0 7 8 0	8 0 0	4 0 0
Productive Works				
Hathmati Canal	10 0 0	5 0 0	3 0 0	1 8 0
Khari Cut	14 0 0	7 0 0	7 0 0	3 8 0
Lower Panjhra River Works ...	...	...	6 0 0	3 0 0
Kadva River Works — Palkhed Canal, Ojhar-Tambat Canal, Wadali Canal	G 20 0 0 14 0 0	(*i*) 10 0 0 (*ii*) 7 0 0	6 0 0	3 0 0
	Y 26 0 0 13 0 0	°13 0 0 † 6 8 0	7 0 0	3 8 0
Mutha Canals and Matoba Tank	1· 50 0 0 2· 40 0 0 3· 30 0 0 4 30 0 0 5· 15 0 0	25 0 0 20 0 0 15 0 0 15 0 0 7 8 0	8 0 0	4 0 0
Ekruk Tank§	15 0 0	7 8 0	8 0 0	4 0 0
Krishna Canal	†15 0 0 °30 0 0	7 8 0 15 0 0	8 0 0	4 0 0
MINOR WORKS AND NAVIGATION				
Wangrote Tank	...	...	6 8 0	3 4 0
Tranza-Nagramma Tanks ...	...	...	6 0 0	3 0 0
Savali Tank	...	...	8 0 0	4 0 0
Sohiat Tank	...	...	6 8 0	3 4 0

XXI—*contd.*

(excluding Sind)

tion Report Part II, for the year 1914-15, Public Works Department
Presidency

Monsoon, four months						Rabi, four months						Remarks
Flow			Lift			Flow			Lift			
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	
2	0	0	1	0	0	3	0	0	1	8	0	Note— (1) For lift irrigation half the ordinary rates are charged.
3	0	0	1	8	0	5	0	0	2	8	0	(2) Double the ordinary rates are charged as penal rates for taking water without permission.
3	0	0	1	8	0	5	0	0	2	8	0	(3) Leakage or percolation rates are the same as ordinary rates.
3	0	0	1	8	0	5	0	0	2	8	0	§For Sugarcane and Pan gardens double the ordinary rates are charged.
1	0	0	0	8	0	2	0	0	1	0	0	*For Sugarcane and Pan gardens
1	0	0	0	8	0	5	0	0	2	8	0	†For perennial crops other than sugarcane and Pan gardens.
2	0	0	1	0	0	4	0	0	2	0	0	1. Sugarcane under the Mutha Canal within the Poona city and Suburban Municipality and Cantonment limits or within one mile of those limits.
2	0	0	1	0	0	4	0	0	2	0	0	
2	0	0	1	0	0	5	0	0	2	8	0	2. Sugarcane on all remaining land commanded by both the Canals.
												3. Sugarcane under the Mataba Tank.
3	0	0	1	8	0	5	0	0	2	8	0	4. Pan gardens.
												5. Perennial crops other than Sugarcane and Pan gardens.
3	0	0	1	8	0	5	0	0	2	8	0	(A) For Sugarcane. (B) For Pan gardens.
3	0	0	1	8	0	5	0	0	2	8	0	(G) Rates for leased areas to be in force till 15th February 1918 on which date the lease will expire.
												(i) For the whole year (ii) For crops irrigated by Canal water during the monsoon and rabi season and by wells during the hot weather.
2	8	0	1	4	0	4	0	0	2	0	0	(Y) Rates for areas outside leased areas to be in force for 5 years ending 15th June 1919, and these rates will also apply to the leased areas on expiry of the present leases till 15th June 1915.
2	0	0	1	0	0	4	0	0	2	0	0	
4	0	0	2	0	0	4	0	0	2	0	0	
2	8	0	1	4	0	4	0	0	2	0	0	

Name of work	Hot weather		Miscellaneous	
	Flow Rs. a. p.	Lift Rs. a. p.	Flow Rs. a. p.	Lift Rs. a. p.
MAJOR WORKS *Protective Works.*				
Paravara River Works—Paravara Right Bank Canal§	4 0 0	2 0 0	...	...
Girna Left Bank Canal§ ...	6 0 0	3 0 0	...	...
Godavari Right Bank Canal§ ...	7 0 0	3 8 0	...	...
Godavari Left Bank Canal § ...	7 0 0	3 8 0	...	...
Mhasvad Tank§	6 0 0	3 0 0	...	...
Nira Canal and Shetphal Tank	7 0 0	3 8 0	...	...
Productive Works.				
Hathmati Canal	6 0 0	3 0 0	...	...
Khari Cut	6 0 0	3 0 0	...	...
Lower Panjhra River Works ...	6 0 0	3 0 0	...	...
Kadva River Works — Palkhed Canal...	6 0 0	3 0 0	...	...
Kadva River Works — Ojhar Tambai Canal ..	6 0 0	3 0 0	...	...
Kadva River Works — Wadali Canal ...	6 0 0	3 0 0	...	...
Mutha Canals and Matoba Tank	7 0 0	3 8 0	...	...
Ekruk Tank§	7 0 0	3 8 0	...	...
Krishna Canal	7 0 0	3 8 0	...	...
MINOR WORKS AND NAVIGATION				
Wangroli Tank	6 0 0	3 0 0	For rice 4 0 0	2 0 0
Tranza-Nagramma Tanks ...	6 0 0	3 0 0	For rice 4 0 0	2 0 0
Savali Tank	6 0 0	3 0 0	...	...
Sahiat Tank	6 0 0	3 0 0	For rice 4 0 0	2 0 0

XXI—*contd.*

(excluding Sind.)—*contd.*

Single watering						Remarks
Flow			Lift			
Rs.	a.	p.	Rs.	a.	p.	
1	0	0	0	8	0	§For Sugarcane and Pan gardens double the ordinary rates are charged.
1	0	0	0	8	0	*For Sugarcane and Pan gardens.
¶1	0	0	0	8	0	¶From 15th June to 14th February for ordinary crops.
2	0	0	1	0	0	
‖1	0	0	0	8	0	‖From 15th February to 14th June for ordinary crops and for Sugarcane and Pan gardens throughout the whole year.
2	0	0	1	0	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
*2	0	0	1	0	0	
...			...			
...			...			
1	0	0	0	8	0	
2	0	0	1	0	0	
2	0	0	1	0	0	
1	0	0	0	8	0	
*2	0	0	1	0	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
*2	0	0	1	0	0	
1	8	0	0	12	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
1	8	0	0	12	0	

Name of work.	Perennial		Early eight months	
	Flow	Lift	Flow	Lift
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
MINOR WORKS AND NAVIGATION—*contd.*				
Hartala Tank	10 0 0	5 0 0½	4 0 0	2 0 0
Mhasva Tank	10 0 0	5 0 0	4 0 0	2 0 0
Jamda Canals	16 0 0	8 0 0	4 0 0	2 0 0
Parsul Tank	...	...	7 0 0	3 8 0
Paravara River Works—Paravara Left Bank Canals ...	...	...	5 0 0	2 8 0
Bhatodi Tank	(*i*)14 8 0	7 4 0	6 8 0	3 4 0
Kasurdi Tank§	...	...	6 8 0	3 4 0
Shirsuphal Tank§	...	...	6 8 0	3 4 0
Bhadalvadi Tank§... ...	...	...	6 8 0	3 4 0
Koregaon Tank§	13 0 0	6 8 0	7 0 0	3 8 0
Ashti Tank§	13 0 0	6 8 0	7 0 0	3 8 0
Pathri Tank§	13 0 0	6 8 0	7 0 0	3 8 0
Revari Canal ...	†12 0 0 °24 0 0	6 0 0 12 0 0	6 0 0	3 0 0
Upper Man River Works	†12 0 0 °24 0 0	6 0 0 12 0 0	6 0 0	3 0 0

XXI—*contd.*

(excluding Sind)—*contd.*

Monsoon four months				Rabi four months				Remarks
Flow			Lift	Flow			Lift	
Rs.	a.	p.	Rs. a. p.	Rs.	a.	p.	Rs. a. p.	
1	0	0	0 8 0	2	0	0	1 0 0	§For Sugarcane and Pan gardens double the ordinary rates are charged.
1	0	0	0 8 0	2	0	0	1 0 0	*For Sugarcane and Pan gardens.
1	0	0	0 8 0	2	0	0	1 0 0	†For perennial crops other than Sugarcane and Pan gardens.
								(*i*) For the whole year.
2	0	0	1 0 0	5	0	0	2 8 0	
2	0	0	1 0 0	3	0	0	1 8 0	
2	8	0	1 4 0	4	0	0	2 0 0	
2	8	0	1 4 0	4	0	0	2 0 0	
2	8	0	1 4 0	4	0	0	2 0 0	
2	8	0	1 4 0	4	0	0	2 0 0	
3	0	0	1 8 0	4	0	0	2 0 0	
3	0	0	1 8 0	4	0	0	2 0 0	
3	0	0	1 8 0	4	0	0	2 0 0	
2	0	0	1 0 0	4	0	0	2 0 0	
2	0	0	1 0 0	4	0	0	2 0 0	

Name of work.	Hot weather		Miscellaneous	
	Flow	Lift	Flow	Lift
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
MINOR WORKS AND NAVIGATION—*contd.*				
Hartala Tank	4 0 0	2 0 0	...	...
Mhasva Tank	4 0 0	2 0 0	...	...
Jamda Canals	4 0 0	2 0 0	..	...
Parsul Tank	8 0 0	4 0 0	...	...
Paravara River Works–Paravara Left Bank Canals ...	4 0 0	2 0 0	...	...
Bhatodi Tank	8 0 0	4 0 0	...	...
Kasurdi Tank§	6 0 0	3 0 0	...	...
Shirsuphal Tank§	6 0 0	3 0 0	...	...
Bhadalvadi Tank§ ...	6 0 0	3 0 0	...	...
Koregaon Tank§	6 0 0	3 0 0	...	...
Ashti Tank§	6 0 0	3 0 0	...	...
Pathri Tank§	6 0 0	3 0 0	...	..
Revari Canal	6 0 0	3 0 0	...	...
Upper Man Rive Works ...	6 0 0	3 0 0	...	...

XXI—*contd.*

(excluding Sind)—*contd.*

Single watering						Remarks.
Flow			Lift			
Rs.	a.	p.	Rs.	a.	p.	
1	0	0	0	8	0	§For Sugarcane and Pan gardens double the ordinary rates are charged.
°2	0	0	1	0	0	°For Sugarcane and Pan gardens.
1	0	0	0	8	0	
°2	0	0	1	0	0	
1	0	0	0	8	0	
°2	0	0	1	0	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
°2	0	0	1	0	0	
1	0	0	0	8	0	
°2	0	0	1	0	0	
1	0	0	0	8	0	
2	0	0	1	0	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
1	0	0	0	8	0	
°2	0	0	1	0	0	
1	0	0	0	8	0	
°2	0	0	1	0	0	

Name of work	Perennial						Early eight months					
	Flow			Lift			Flow			Lift		
	Rs.	a.	p.	Rs.	a.	p.	Rs	a.	p.	Rs.	a.	p.
MINOR WORKS AND NAVIGATION—*contd*												
Yerla River Irrigation Works	†12	0	0	6	0	0	6	0	0	3	0	0
	*24	0	0	12	0	0						
Chikhli Canal ...	†12	0	0	6	0	0	6	0	0	3	0	0
	*24	0	0	12	0	0						
Maini Tank ...	†12	0	0	6	0	0	6	0	0	3	0	0
	*24	0	0	12	0	0						
Muchkundi Tank ...	8	0	0	4	0	0	4	0	0	2	0	0
Gadikeri Tank	...			...			...			...		
Gokak Canal, 1st. section, and Storage Works	(*i*)22	0	0	11	0	0	8	0	0	4	0	0
	(*ii*)16	0	0	8	0	0						
Dambal Tank	14	0	0	7	0	0	(*a*) 5	0	0	2	8	0
							(*b*) 7	0	0	3	8	0
Medleri Tank	14	0	0	7	0	0	(*a*) 5	0	0	2	8	0
							(*b*) 7	0	0	3	8	0
Asundi Tank	14	0	0	7	0	0	(*a*) 5	0	0	2	8	0
							(*b*) 7	0	0	3	8	0
Madag Tank	10	0	0	5	0	0	(*a*) 5	0	0	2	8	0
							(*b*) 7	0	0	3	8	0
Mavinkop Tank	...			...			...			...		
Dharma Canal	14	0	0	7	0	0	(*a*) 5	0	0	2	8	0
							(*b*) 7	0	0	3	8	0

XXI—*contd.*

(excluding Sind)—*contd.*

Monsoon four months		Rabi four months		Remarks.
Flow	Lift	Flow	Lift	
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
2 0 0	1 0 0	4 0 0	2 0 0	*For Sugarcane and Pan gardens. †For Perennial crops other than Sugarcane and Pan gardens. (*i*) For the whole year. (*ii*) For Sugarcane irrigated between 15th June and 14th February. (*a*) From 15th June to 15th February. (*b*) „ 15th October to 15th June or 1st August to 31st March. (*c*) „ 15th June to 15th October or 15th July to 30th November. (*d*) „ 15th October to 15th February. (*e*) „ 15th June to 15th October.
2 0 0	1 0 0	4 0 0	2 0 0	
2 0 0	1 0 0	4 0 0	2 0 0	
...	...	...	...	
...	...	...	...	
3 0 0	1 8 0	5 0 0	2 8 0	
c 3 0 0	1 8 0	*c* 3 0 0 *d* 3 8 0	1 8 0 1 12 0	
c 3 0 0	1 8 0	*c* 3 0 0 *d* 3 8 0	1 8 0 1 12 0	
c 3 0 0	1 8 0	*c* 3 0 0 *d* 3 8 0	1 8 0 1 12 0	
c 3 0 0	1 8 0	*c* 3 0 0 *d* 3 8 0	1 8 0 1 12 0	
...	...	...	...	
c 3 0 0	1 8 0	*c* 3 0 0 *d* 3 8 0	1 8 0 1 12 0	

Name of work.	Hot weather		Miscellaneous	
	Flow	Lift	Flow	Lift
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
MINOR WORKS AND NAVIGATION—*concld.*				
Yerla River Irrigation Works ...	6 0 0	3 0 0	...	...
Chikhli Canal	6 0 0	3 0 0	...	...
Maini Tank	6 0 0	3 0 0	...	...
Muchkundi Tank	...	...	...	...
Gadikeri Tank	...	...	...	...
Gokak Canal, 1st section and Storage Works ...	15 0 0	7 8 0	...	...
Dambal Tank	6 0 0	3 0 0	...	...
Medleri Tank	6 0 0	3 0 0	...	...
Asundi Tank	6 0 0	3 0 0	...	...
Madag Tank	6 0 0	3 0 0	...	...
Mavinkop Tank	...	...	...	...
Dharma Canal	6 0 0	3 0 0	...	...

XXI—*concld.*

(excluding Sind)—*concld.*

Single watering.						Remarks.
Flow			Lift			
Rs.	a.	p.	Rs.	a.	p.	
1	0	0	0	8	0	
*2	0	0	1	0	0	
1	0	0	0	8	0	
*2	0	0	1	0	0	
1	0	0	0	8	0	
*2	0	0	1	0	0	
...			...			
...			...			
1	0	0	0	8	0	
(e) 1	0	0	0	8	0	
(g) 2	0	0	1	0	0	
(e) 1	0	0	0	8	0	
(g) 2	0	0	1	0	0	
(e) 1	0	0	0	8	0	
(g) 2	0	0	1	0	0	
(e) 1	0	0	0	8	0	
(g) 2	0	0	1	0	0	
...			...			
(e) 1	0	0	0	8	0	
(g) 2	0	0	1	0	0	

*For Sugarcane and Pan gardens.

(e) From 15th June to 15th October.

(g) „ 16th October to 14th June.

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